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THE  
ZOOLOGICAL RECORD

VOLUME THE SIXTY-EIGHTH

BEING

RECORDS OF ZOOLOGICAL LITERATURE

RELATING CHIEFLY TO THE YEAR

1931.

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A. K. TOTTON, H. M. MUIR WOOD, AND THE IMPERIAL INSTITUTE OF  
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EDITED BY

W. L. SCLATER, M.A., F.Z.S.

Explore solum : sic fit via certior ultra.

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## PREFACE.

OWING to the prompt co-operation of the Recorders, it is expected that the Sixty-eighth Volume of the Zoological Record will be ready for distribution to subscribers by the end of September. The various parts have already been issued between the months of May and September.

The present volume contains 1258 pages of Record matter, a slight increase on last year when the number of pages was 1216. On the other hand it has not been considered necessary to reprint the List of Journals, though the names of a few newly established ones have been included as a supplement to the List of New Genera.

There have been no changes among the Recorders since the last issue of the Record.

In consequence of the small demand for the separate Sections of the Insecta previously available, the Committee have decided to give up the issue of the separate parts, and in future the Insecta will be issued only in a complete form at a price of 15s.

The thanks of the Zoological Record Committee are again due to Dr. W. T. Calman, Mr. J. R. Norman, and Mr. J. R. le B. Tomlin for reading proofs of those Records in regard to which they have had special knowledge, and to Mr. H. G. K. Molineux who has supplied the Editor with a large number of valuable references to titles, chiefly relating to Birds from Russian periodicals. These do not reach this country by the ordinary channels and are thus most difficult to trace.

The accounts of the "Record Fund," which is appended, shows a slight but satisfactory increase in the balance available for the present year.

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## STATE OF "RECORD FUND" AT DECEMBER 31ST, 1931.

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Balance from Vol. 66 (Annual Report, 1930, page 14)....				2,158	8	4
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				1,009	3	1
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## EXPLANATORY

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This Volume is printed in the Divisions enumerated on p. vii.

The pagination of each Division is separate, and is given at the top corner of the pages. The number and name of the Division is given as a heading on each page. The date 1931 corresponding to the bulk of the literature indexed is given at the top of each page.

In the Subject Index of each Division authors are quoted by name only. The full references will be found in the Title Section of the Division.

The Literature indexed is mainly that of 1931 but includes entries for earlier years that have been received too late for inclusion in previous volumes.

### ERRATUM.

A paper published by Ortman & Walker (Vermes, p. 35) has been inadvertently included in Vermes. It should have been referred to Mollusca. It contains three new generic names not previously mentioned in the Record though published in 1922.

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# I. COMPREHENSIVE ZOOLOGY

ARRANGED BY

W. L. SCLATER, M.A.

This section includes works that deal with more than one branch of Zoology, or that are of general interest to Zoologists. It is, therefore, not complete in itself as regards any one subject included in it. The special records complete each subject. A few memoirs included in the special records are repeated in this division as well as the literature on the Genetics of *Drosophila* and some other insects used as a vehicle for these special researches.

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# II. PROTOZOA

ARRANGED BY

CECIL A. HOARE, D.Sc.

AND

H. E. BARGMANN, Ph.D.

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## PROTOZOA, GENERAL.

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*Endamoeba histolytica*, identity of forms from monkeys (*Macacus* spp.) and man established, DOBELL 183.—*E. phallusiae* sp. n., from intestine of Ascidian, *Phallusia mamillata*, Plymouth, MACKINNON & RAY J. Mar. Biol. Ass. 17 p. 583 figs.

*Entamoeba* vide *Endamoeba*.

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*Leptomyxa reticulata* var. n. *humuli*, parasitic on Tasmanian hops, McLENNAN Aust. J. Exp. Biol. Med. Sci. 8 9 figs.

### (b) Testacea.

*Arcella rotundata* var. *aplanata* f. *foveosa* f. n. British Columbia, WAILES Mus. Art. Notes Vancouver 5 p. 160 figs.

*Diffugia acutissima* sp. n. marine, DEFLANDRE Ann. Protist. 3 p. 81 figs.—†*D. calcifera* sp. n. Eocene Colorado, BRADLEY Prof. Pap. U.S. Geol. Surv. 168 p. 1 figs.—*D. sarissa* sp. n. fresh water, China, TAI Sci. Rpts. Nat. Tsing Hua Univ. 1 p. 1 figs.—*D. schurmani* sp. n., *amphora* var. *africana* var. n. S. Africa, OYE Rev. zool. bot. afr. 21 p. 54.

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*Hyalosphenia papilio* var. *stenostoma* var. n. damp moss, DEFLANDRE Ann. Protist. 3 p. 81 figs.

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*Sphenoderia minuta* sp. n. damp moss, DEFLANDRE Ann. Protist. 3 p. 81 figs.

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†*Urnulina compressa* sp. n. Tertiary Florida, CUSHMAN Florida State Geol. Surv. 4 p. 5 figs.

†*Uvigerina barbatula* sp. n. Miocene Egypt, MACFADYEN Geol. Surv. Egypt 1930 p. 1 figs.—†*U. mariannensis* sp. n. Tertiary Florida, COLE & PONTON Florida State Geol. Surv. 1930 p. 19 figs.—†*U. vicksburgensis* sp. n. Tertiary Texas, CUSHMAN & ELLISOR Contr. Cushman Lab. Foraminif. Res. 7 p. 51 figs.—†*U. peregrina* var. *latalata* var. n. Post-Miocene, California, ROSCOE & STEWART Journ. Pal. 4 p. 60 figs.

†*Uvigerinella sparsicostata* sp. n., *obesa* var. *impolita* var. n. Miocene California, CUSHMAN & LAI-MING J. Paleont. 5 p. 79 figs.

†*Valvulineria casitasensis* sp. n. Miocene California, CUSHMAN & LAI-MING J. Paleont. 5 p. 79 figs.—†*V. texana* sp. n. Tertiary Texas, CUSHMAN & ELLISOR Contr. Cushman Lab. Foraminif. Res. 7 p. 51 figs.—†*V. floridana* sp. n. Tertiary Florida, CUSHMAN Florida State Geol. Surv. 4 p. 5 figs.

†*Vertebralina jamaicensis* sp. n. Eocene Jamaica, CUSHMAN & JARVIS Contr. Cushman Lab. Foraminif. 7 p. 75 figs.

†*Virgulina fusiformis* sp. n. Tertiary Florida, CUSHMAN Florida State Geol. Surv. 4 p. 5 figs.—†*V. miocenica* sp. n. Miocene Florida, CUSHMAN Contr. Cushman Lab. Foraminif. 7 p. 32.—†*V. nodosa* sp. n. Post-Miocene, California, ROSCOE & STEWART Journ. Pal. 4 p. 60 figs.

†*Wedekindia* nom. n. for *Wedekindella*, DUNBAR & HENBEST Amer. J. Sci. (5) 21 p. 458.

†*Wedekindia henbesti* sp. n. Primary Texas, SKINNER J. Paleont. 5 p. 253 figs.

#### (d) Heliozoa.

*Actinonomonas radiosa* sp. n. freshwater Moscow, ROSKIN Arch. Protistenk. 73 p. 203 figs.

*Astrodisculus serratus* sp. n. freshwater, WALTON Ohio Biol. Surv. Bull. 24 p. 1 figs.

*Labyrinthula* sp., marine, structure and habits, JEFFS 326.

#### (e) Radiolaria.

*Carposphaera affinioides* sp. n., KHUDYAEV Trans. Geol. Prosp. Service U.S.S.R. 46 p. 3 figs.



*Genosphaera komiensis, syssolae* spp. n., KHUDYAEV Trans. Geol. Prosp. Service U.S.S.R. 46 p. 3 figs.

*Cornutanna ovalis* sp. n., KHUDYAEV Trans. Geol. Prosp. Service U.S.S.R. 46 p. 3 figs.

*Cyrtocapsa riusti* sp. n., KHUDYAEV Trans. Geol. Prosp. Service U.S.S.R. 46 p. 3 figs.

*Dictyomitra multipora, spicularis, biporosa* spp. n., KHUDYAEV Trans. Geol. Prosp. Service U.S.S.R. 46 p. 3 figs.

*Dicolocapsa trapezoidalis* sp. n., KHUDYAEV Trans. Geol. Prosp. Service U.S.S.R. 46 p. 3 figs.

*Lithapium supraspinosum* sp. n., KHUDYAEV Trans. Geol. Prosp. Service U.S.S.R. 46 p. 3 figs.

*Lithocampe syssolaensis* sp. n., KHUDYAEV Trans. Geol. Prosp. Service U.S.S.R. 46 p. 3 figs.

*Lythocyclia ovalis* sp. n., KHUDYAEV Trans. Geol. Prosp. Service U.S.S.R. 46 p. 3 figs.

*Phormocampe favosa* sp. n., KHUDYAEV Trans. Geol. Prosp. Service U.S.S.R. 46 p. 3 figs.

*Stichocapsa regularis, quadripora, kassini, zyrjanica, wisingiana* spp. n., KHUDYAEV Trans. Geol. Prosp. Service U.S.S.R. 46 p. 2 figs.

*Tricolocapsa multipora* sp. n., KHUDYAEV Trans. Geol. Prosp. Service U.S.S.R. 46 p. 3 figs.

### 3. MASTIGOPHORA.

#### A. PHYTOMASTIGINA.

##### (a) Chrysomonadina.

[Vacant.]

##### (b) Cryptomonadina.

[Vacant.]

##### (c) Dinoflagellata.

*Amphidinium inflatum* sp. n. Japan, KOFOID Sci. Rep. Tôhoku Univ. 6 p. 1 figs.—*A. hyalinum* sp. n. Hungary, ENTZ Arb. Ung. Biol. Forsch. Inst. 3 p. 206 figs.

*Ceratium tripos* var. *brevispinum* n. var. Gulf of Salonika, ATHANASSOPOULOS Bull. Inst. Océanogr. Monaco 1931 p. 1 figs.

*Cochlodinium flavum* sp. n. Japan, KOFOID Sci. Rep. Tôhoku Univ. 6 p. 1 figs.

*Codonolepsis salonicana* sp. n. Gulf of Salonika, ATHANASSOPOULOS Bull. Inst. océanogr. Monaco 1931 p. 1 figs.

*Coscinodiscus hyaleus* sp. n. Gulf of Salonika, ATHANASSOPOULOS Bull. Inst. océanogr. Monaco 1931 p. 1 figs.

*Dinophysis phalerica* sp. n. Gulf of Salonika, ATHANASSOPOULOS Bull. Inst. océanogr. Monaco 1931 p. 1 figs.

*Exuviaella missolongica, para-compressa* spp. n. Gulf of Salonika, ATHANASSOPOULOS Bull. Inst. océanogr. Monaco 1931 p. 1 figs.

*Favella truncata* sp. n. Gulf of Salonika, ATHANASSOPOULOS Bull. Inst. océanogr. Monaco 1931 p. 1 figs.

*Glenodiniopsis pretiosa* sp. n. E. Indies, LINDEMANN Arch. Hydrobiol. Suppl. 8 p. 691 figs.

*Glenodinium guildfordense* nom. n. for *Peridinium caudatum* var. *guildfordense*, *Glenodinium geminum* nom. n. for *Peridinium geminum* E. Indies, LINDEMANN Arch. Hydrobiol. Suppl. 8 p. 691 figs.

*Gonyaulax symmetricus, diacanthus spinosus* spp. n. Gulf of Salonika, ATHANASSOPOULOS Bull. Inst. océanogr. Monaco 1931 p. 1 figs.

*Gymnodinium nelsoni, subrufescens* spp. n. New Jersey, MARTIN Univ. Iowa Studies 12 p. 1 figs.—*G. arcuatum, gelbum, ochraceum, spheroidium, viridescens* spp. n. Japan, KOFOID Sci. Rep. Tôhoku Univ. 6 p. 1 figs.

*Gyrodinium ascendans, citrinum, ferrugineum, flavum* spp. n. Japan, KOFOID Sci. Rep. Tôhoku Univ. 6 p. 1 figs.

*Histioneis schilleri, pietschmanni, cerasus, fragilis* spp. n. Indian Ocean and Persian Gulf, BÖHM Arch. Protistenk. 75 p. 498 figs.

*Metacylis lineata, simplex paraponica* spp. n. Gulf of Salonika, ATHANASSOPOULOS Bull. Inst. océanogr. Monaco 1931 p. 1 figs.

*Nematodinium atromaculatum* sp. n. Japan, KOFOID Sci. Rep. Tôhoku Univ. 6 p. 1 figs.

*Oodinium ocellatum* sp. n. from gills of fishes, BROWN Proc. Zool. Soc. London 1931 pp. 345-346.

*Oxylozum phalericum* sp. n. Gulf of Salonika, ATHANASSOPOULOS Bull. Inst. océanogr. Monaco 1931 p. 1 figs.

*Parahistioneis pachypus, conica* spp. n. Indian Ocean, BÖHM Arch. Protistenk. 75 p. 498 figs.

Peridinea, parasitic, general description, REICHENOW 556.

*Peridinium phalericum, acarnanicum missolongicum, para-cranii, para-dalariensis, sphaericum* spp. n. Gulf of Salonika, ATHANASSOPOULOS Bull. Inst. océanogr. Monaco 1931 p. 1 figs.—*P. striatum, schilleri* spp. n. Persian Gulf, BÖHM Arch. Protistenk. 74 p. 188 figs.—*P. excavatum* sp. n. New Jersey, MARTIN Univ. Iowa Studies 12 p. 1 figs.—*P. para-cerasus* sp. n. Gulf of Salonika, ATHANASSOPOULOS Bull. Inst. océanogr. Monaco 1931 p. 1 figs.—*P. ambiguum, ornamentosum, baliense, playfairi* spp. n., *centenniale* var. *fistulatum* var. n., *volzi* var. *botanicum* nom. n. for *willei* var. *botanicum*, *centenniale* nom. n. for *umbonatum* var. *centenniale* E. Indies, LINDEMANN Arch. Hydrobiol. Suppl. 8 p. 691 figs.

*Podolampus graeca* sp. n. Gulf of Salonika, ATHANASSOPOULOS Bull. Inst. océanogr. Monaco 1931 pp. 1-26 figs.

*Pouchetia hataii, matsu, reticulata* spp. n. Japan, KOFOID Sci. Rep. Tôhoku Univ. 6 p. 1 figs.

*Prorocentrum micans, missolongicum, senidentatum, macrurus, blatta*, spp. n. Gulf of Salonika, ATHANASSOPOULOS Bull. Inst. océanogr. Monaco 1931 p. 1 figs.—*P. micans* var. *undulatum* var. n. Persian Gulf, BÖHM Arch. Protistenk. 74 p. 188 figs.

#### (d) Euglenoidida.

*Acinetactis polymorpha* sp. n. fresh-water Moscow, ROSKIN Arch. Protistenk. 73 p. 203 figs.

*Anisonema obliquum* sp. n. fresh-water Moscow, ROSKIN Arch. Protistenk. 73 p. 203 figs.

*Euglena leucops* sp. n., parasitic in turbellaria, *Stenostomum* spp., U.S.A., HALL Biol. Bull. 60 p. 327 figs.—*Euglena proxima* f. n. *major, limnophila* f. n. *minor, granulata* f. n. *tenuior* S. Africa, HUBER-PESTALOZZI Atti Congr. Int. Limnologie 4 p. 343 figs.

*Eutreptia ovata* sp. n. fresh-water, WALTON Ohio Biol. Surv. Bull. 24 p. 1 figs.

*Klebsiella* gen. n. *alligata* sp. n., PASCHER Arch. Protistenk. 73 p. 315 figs.

*Lepocinclis hegneri* sp. n. fresh-water, WALTON Ohio Biol. Surv. Bull. Columbus 24 p. 1 figs.—*L. texta* f. n. *minor, bütschlii* var. *major, obtusa* varr. n. S. Africa, HUBER-PESTALOZZI Atti Congr. Int. Limnologie 4 p. 343 figs.

*Phacus triquetus* var. *minor* var. n. S. Africa, HUBER-PESTALOZZI Atti Congr. Int. Limnologie 4 p. 343 figs.

*Trachelomonas serrata, ellipsoidea* spp. n. fresh-water China, TAI Sci. Rpts. Nat. Tsing Hua Univ. 1 p. 1 figs.

*Urceolus ovatus* sp. n. fresh-water Moscow, ROSKIN Arch. Protistenk. 73 p. 203 figs.

#### (e) Phytomonadida.

*Bicoeca planktonica* sp. n. fresh-water Leningrad, KISSELEW Arch. Protistenk. 73 p. 235 figs.

*Carteria peterhofiensis* sp. n. fresh-water Leningrad, KISSELEW Arch. Protistenk. 73 p. 235 figs.

*Chlamydomonas oblonga, insignis, vulgaris, brevicauda* spp. n. from a stream near Charkow, ANACHIN Arch. Protistenk. 73 p. 131 figs.—*C. amestatos, waldenburgensis, polypyrenoides, bastigmata, pseudoparadoxa, leptos, silesiace, badensis, kakosmos, micropapillata, knieptii, hallensis, dysosmos, eugametos, eumetablotos, hartmanni, eupapillata*, spp. n., MOEWUS Arch. Protistenk. 75 p. 28 figs.

*Chlorogonium peterhofiense* sp. n. fresh-water Leningrad, KISSELEW Arch. Protistenk. 73 p. 235 figs.

*Codonosiga ornata* sp. n. fresh-water Moscow, ROSKIN Arch. Protistenk. 73 p. 203 figs.

*Mallomonas intermedia, torulosa* spp. n., *elegans* var. *pulchella*, var. n. fresh-water Leningrad, KISSELEW Arch. Protistenk. 73 p. 235 figs.

*Pseudo-mallomonas elliptica* sp. n. fresh-water Leningrad, KISSELEW Arch. Protistenk. 73 p. 235 figs.

*Pseudosyncrypta* gen. n. *volvox* sp. n. fresh-water Leningrad, KISSELEW Arch. Protistenk. 73 p. 235 figs.

## B. ZOOMASTIGINA.

## (f) Protomonadida.

*Bodo phlebotomi*, synonym of *Trypanosoma phlebotomi* (q.v.).

*Crithidia phlebotomi*, synonym of *Trypanosoma phlebotomi* (q.v.).

Devescovinae subfam. n., KIRBY 365.

*Embadomonas* Mackinnon, 1911, synonym of *Retortamonas* Grassi, 1879, WENRICH 699.

*Embadomonas blattae* sp. n., from intestine of *Blatta orientalis*; *E. dobelli* sp. n., from intestine of *Rana*, *Bufo* and *Salamandra*, BISHOP Parasitol. 23 p. 286 figs.—*E. ruminantium* sp. n., from Indian bull, KNOWLES & GUPTA Ind. J. Med. Res. 18 p. 1299 figs.

*Endotrypanum* (Mesnil & Brimont, 1908) subgen. n. of *Trypanosoma*, NÖLLER 504.

*Eutrichomastix axostylis* sp. n., from termite, *Nasutitermes kirbyi*, Panama, KIRBY Univ. Calif. Pub. Zoo. 36 p. 14 figs.—*E. batrachorum*, "cysts" described by Dobell (1909) belong to *Embadomonas dobelli* sp. n. (q.v.), BISHOP 54.

*Herpetomonas zonuri* sp. n., from S. African lizards, *Zonurus* spp., FANTHAM S. Afr. J. Sci. 28 p. 323.—*H. (Leptomonas) ganorae* sp. n., from *Ficus hochstetteri*, Erythraea, FRANCHINI Bull. Soc. Path. Exot. 24 p. 843 figs.—*H. phlebotomi*, synonym of *Trypanosoma phlebotomi* (q.v.).

*Pentatrichomonoides* gen. n. *scroa* sp. n., from termites, *Kaloterms* spp., Panama, KIRBY Univ. Calif. Pub. Zoo. 36 p. 14 figs.

Polymastiginae subfam. n., KIRBY 365.

*Retortamonas gryllotalpae* Grassi, 1879, congeneric with *Embadomonas* MAC-KINNON, 1911 (q.v.).

*Schizotrypanum* (Chagas, 1909) subgen. n. of *Trypanosoma*, NÖLLER 504.

*Strigomonas* subgen. n., for *Leptomonas oncopelti* and *L. fasciculata*, LWOFF, M. & A. 432.

Trichomonadinae subfam. n., general account, KIRBY 365.

*Trichomonas barbouri* sp. n., from termite, *Kaloterms barbouri*; *T. carta-*

*goensis* sp. n., from *K. contracticornis*; *T. linearis* sp. n., from *Orthognathotermes wheeleri*; *T. tabelli* sp. n., from *Microtermes hispaniolae*, Panama, KIRBY Univ. Cal. Pub. Zoo. 36 p. 14 figs.—*T. dubosqui* sp. n., from the frog, *DiscoGLOSSUS pictus*, France, GRASSÉ C.R. Soc. Biol. 107 p. 511 figs.—*T. batrachorum*, "cysts" described by Dobell (1909) belong to *Embadomonas dobelli* sp. n. (q.v.), BISHOP 54.

*Tritrichomonas brevicollis* sp. n., from termite, *Kaloterms brevicollis*; *T. holmgreni* sp. n., from *K. holmgreni*, Panama, KIRBY, Univ. Cal. Pub. Zoo. 36 p. 14 figs.

*Trypanosoma cristatae* sp. n., from blood of African bird, *Corythaëola cristata*, SCHWETZ Ann. Parasitol. 9 p. 311 figs.—*T. graphiuri* [sp. n.], from dormouse, *Graphiurus murinus*, Congo, LOMBART Ann. Soc. Belg. Méd. Trop. 11 p. 209 figs.—*T. theodori* sp. n. for parasite of Palestine goat (Theodor, 1928), HOARE, Parasitol. 23 p. 449.—*T. hemidactyli*, synonym of *T. phlebotomi* (q.v.).—*T. phlebotomi* nom. n. for *Herpetomonas phlebotomi* Mackie, 1914, *Trypanosoma hemidactyli* Mackie, Gupta & Swaminath, 1922, *Crithidia phlebotomi* iid., and *Bodo phlebotomi* Shortt, 1925, description of life-cycle and morphology in gecko and sandfly, SHORTT & SWAMINATH Ind. J. Med. Res. 19 p. 541 figs.—*T. grayi*, life-cycle in tsetse-fly and in crocodile, HOARE 283.—*T. marocanum* (= *T. evansi*), comparative study of camel and equine strains, NATTAN-LARRIER & NOYER 494.

## (g) Hypermastigida.

*Spironympha ovalis* sp. n., from termite, *Reticulitermes hesperus*, California, BROWN J. Morph. 51 p. 291 figs.

## (b) Diplomonadida.

[Vacant.]

## (i) Polymonadida.

[Vacant.]

## 4. SPOROZOA.

## A. COCCIDIOMORPHA.

## (a) Gregarinida.

Gregarine [? doubtful], from malignant tumours of mice, NEVIADOMSKY 500.

*Choanocystella* nom. n. for *Choanocystis* Cognetti, 1926, pre-occupied by *Choanocystis* Pénard, 1904 (Heliozoa), MELLO 471.

*Choanocystis*, vide *Choanocystella*.

*Gonospora duboscqui* sp. n., from mollusc, *Bithynia tentaculata*, TUZET Arch. Zool. Exp. (N. & R.) 71 p. 16.

*Hentschelia* gen. n. *thalassemæ* sp. n., from marine worm, *Thalassema neptuni*, Plymouth, MACKINNON & RAY Q. J. Micr. Sci. 74 p. 439 figs.

*Hyperidion* gen. n. *thalassemæ* sp. n., from marine worm, *Thalassema neptuni*, Plymouth, MACKINNON & RAY Q. J. Micr. Sci. 74 p. 467 figs.

*Lecythion* gen. n. *thalassemæ* sp. n., from marine worm, *Thalassema neptuni*, Plymouth, MACKINNON & RAY Q. J. Micr. Sci. 74 p. 439 figs.

*Monocystis mrazeki* sp. n., from oligochaete, *Rhynchelmis limosela*, HAHN Věst. česk. Akad. 38 p. 28.

*Polyrhabdina spionis* var. n. *bifurcata*, from marine worm, *Scolecopsis fuliginosa*, Plymouth, MACKINNON & RAY Q. J. Micr. Sci. 74 p. 439 figs.

*Porosporides* (*Porospora* and *Nematopsis*), life-cycle in molluscs and crustaceans, HATT 272.

"*Selenidium*," (gen ?) *giganteum* sp. n., from intestine of Ascidian, *Polycarpa pomaria*, HARANT Ann. Inst. océanogr. 8 p. 347 figs.

*Selysina duboscqui* sp. n., from Ascidian, *Styela partita*, HARANT Ann. Inst. océanogr. 8 p. 347 figs.

## (b) Coccidiida.

Coccidia, of the rabbit, general account, KESSEL & JANKIEWICZ 355.

*Coccidium*, vide *Eimeria*.

*Eimeria acanthodactyli* sp. n., from lizard, *Acanthodactylus scutellatus*, PHISALIX Bull. Mus. Hist. Nat. 3 p. 317.—*E. aemula* sp. n., from sheep, Russia, YAKIMOFF Arch. Protist. 75 p. 157 figs.—*E. arctomysi* sp. n., from marmot, *Arctomys marmota*, GALLI-VALERIO Zbl. Bakt. 120 p. 98.—*E. bukidnonensis* sp. n., from Philippine cattle, TUBANGUI Philipp. J. Sci. 44 p. 253 figs.—*E. cylindrica* sp. n., from American cattle, WILSON Virginia Agr. Exp. Sta. Techn. Bull. 42 figs.—*E. leptodactyli* sp. n., from

Brazilian frog, *Leptodactylus ocellatus*, CARINI C.R. Soc. Biol. 106 p. 1019.—*E. media*, *E. irresidua* spp. n., from intestine of rabbit, U.S.A., KESSEL & JANKIEWICZ Amer. J. Hyg. 14 p. 304 figs.—*E. perforoides*, *E. os* spp. n., from a marmot, *Marmota monax*, U.S.A., CROUCH & BECKER Iowa St. Coll. J. Sci. 5 p. 127.—*E. scabra*, *E. perminuta*, *E. spinosa* spp. n., from domestic pig, U.S.A., HENRY Univ. Cal. Pub. Zoo. 36 p. 115 figs.—*E. separata* sp. n., from rat, BECKER & HALL J. Parasit. 18 115, Iowa State Coll. J. Sci. 6 p. 131.—*E. sibirica* sp. n., from the sable, Siberia, YAKIMOFF & TERWINSKY Arch. Protistenk. 73 p. 56 fig.—*E. zurnabadensis* sp. n., and other *E. spp.*, from zebu, Caucasus, YAKIMOFF Bull. Soc. Path. Exot. 24 p. 644.

*Haemogregarina cenchridis* sp. n., from snake, *Epicrates cenchris*, S. America, PHISALIX Bull. Soc. Path. Exot. 24 p. 187 Bull. Mus. Hist. Nat. 3 p. 319.—*H. romani*, *H. capsulata* spp. n., from snake, *Crotalus terrificus*, S. America, PHISALIX Bull. Soc. Path. Exot. 24 p. 190.

Haemogregarine (*indet.*), from sterlet, *Acipenser ruthensis* Russia, PEREKROPOFF 528.

*Iospora vulpis* sp. n., from *Vulpes vulgaris*; *I. lyruri* sp. n., from grouse, *Lyrurus tetrix*, GALLI-VALERIO Zbl. Bakt. 120 p. 98.

*Pseudoklossia legeri* sp. n., from Ascidian, *Styela partita*, HARANT Ann. Inst. Océanogr. 8 p. 347 figs.

## (c) Haemosporidia.

*Babesia kolzovi* sp. n., from marmot, *Citellus pygmaeus*, Russia, SASSUCHIN Arch. Protist. 75 p. 135 figs.—*B. orientalis* sp. n., from Siberian cattle, YAKIMOFF & SOUDATSCHENKOFF Arch. Protist. 75 p. 179 figs.—*B. sp.* from sable antelope, *Hippotragus niger*, MARTINAGLIA 459.

*Babesiella karelica* Yakimoff, 1928, synonym of *Françaiella caucasica*, YAKIMOFF & RASTEGAIEFF 721.

*Gonderia*, vide *Babesia*.

*Leucocytozoon monardi* sp. n., from *Passer griseus*; *L. vandenbrandeni* sp. n., from *Plotus rufus*, Congo, RODHAIN C.R. Soc. Biol. 107 p. 273 figs.—*L. anatis*, development in *Simulium*, O'ROKE 515.

*Piroplasma*, vide *Babesia*.

*Piroplasma*, revision of nomenclature of the genus, YAKIMOFF 710.

Piroplasms of bovines and sheep in Turkey, LESTOQUARD, LESTOQUARD & EKREM 404.

*Plasmodium*, of birds, systematic revision of spp., SERGENT, etc., 618.—Differentiation of species by morphological, clinical and immunological characters, KIKUTH 361.

*Plasmodium circumflexum* sp. n., from thrush, *Turdus pilaris*, KIKUTH Zbl. Bakt. 121 p. 401 figs.—*P. fallax* sp. n., from owl, *Syrnium nuchale*, Congo, SCHWETZ Arch. Inst. Past. Alger. 8 p. 289 figs.—*P. maculilabre* sp. n., from blood of lizard, *Mabuia maculilabris*, Congo, SCHWETZ Ann. Parasit. 9 p. 193 figs.—*P. sp.* of *Macacus*, development in *Anopheles*, GREEN 254.

*Theileria sergenti* sp. n., from Siberian cattle, YAKIMOFF & DECHTEREW Trop. Med. Vet. 9 p. 42 figs.—*T. dispar*, of N. African bovines, transmission by tick, *Hyalomma mauritanicum*, SERGENT, etc., 614.—*T. parva*, life-cycle in the tick, *Rhipicephalus appendiculatus*, COWDREY & HAM 136.

## B. CNIDOSPORIDIA.

### (d) Myxosporidia.

Myxosporidia, with new forms, from Californian fish, JAMESON 319.

*Ceratomyxa taenia* sp. n., from fish, *Triakis semifasciatus*; *C. venusa* sp. n., from fish, *Cynoscion nobilis*, California, JAMESON J. Parasit. 18 p. 59 figs.

*Chloromyxum bora* sp. n., from Japanese fish, FUJITA Dobut. Zasshi 42 p. 45 figs.—*C. legeri* sp. n., from carp, *Cyprinus carpio*, TOURAINE C.R. Acad. Sci. 192 p. 1125.—*C. levigatum* sp. n., from fish, *Squatina californica*, California, JAMESON J. Parasit. 18 p. 59 figs.

*Myxobolus luciopercae* sp. n., from *Lucioperca sandra*, River Elbe, SCHÄFFERNA & JÍROVEC Z. Parasitenk. 3 p. 148 figs.

*Sinuolinea* nom. n. for *Ceratomyxa spinosa* DAVIS, 1917; including *S. brachiophora* and *S. opacita*.—*S. dimorpha*, *S. capsularis* and *S. arborescens*

removed to gen. *Sphaerospora*, *S. bidens*, *S. cella* spp. n., from Californian fish, *Porichthys notatus*, JAMESON J. Parasit. 18 p. 59 figs.

### (e) Microsporidia.

*Gurleya cyclopis* sp. n., from *Cyclops albidus*, LEBLANC Ann. Soc. Sci. (B) 50 p. 272 fig.

*Nosema herpobdellae* sp. n., from leech, *Herpobdella octoculata*, CONET Ann. Soc. sci. Bruxelles 51 p. 170.

*Plistophora chironomi* sp. n., from larvae of *Chironomus* sp. France, DEBAISSIEUX C.R. Soc. Biol. 107 p. 913 figs.—*P. cyclopis* sp. n., from *Cyclops albidus*, LEBLANC Ann. Soc. Sci. (B) 50 p. 272 fig.

*Toxonema chironomi* sp. n., from larvae of *Chironomus* sp. France, DEBAISSIEUX C.R. Soc. Biol. 107 p. 913 ags.

### ((f) Actinomyxidia.

[Vacant.]

### (g) Sarcosporidia.

[Vacant.]

### (h) Haplosporidia.

[Vacant.]

## SPOROZOA INCERTAE SEDIS.

*Toxoplasma*, general account, NÖLLER 506.

*Toxoplasma*, suggested causative organism of human glandular fever, BLAND 57.

## 5. CILIOPHORA.

### A. OPALINATA.

*Cepedea thiagi* sp. n., from Indian frog, *Rhacophorus maculatus*, MELO Arq. Esc. Méd.-Cirurg. N. Goa 6 p. 951 figs.

*Opalina sudafricana* var. n. *gutturalis*, from *Bufo regularis guttaralis*, S. Africa, FANTHAM S. Afr. J. Sci. 28 p. 323.

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## B. CILIATA.

## (a) Holotrichida.

*Ancistrella* gen. n. *choanomphali* sp. n. (fam. Ancistridae), from mantle cavity of mollusc, *Choanomphalus* sp., Baikal, CHEISSIN Arch. Protistenk. 73 p. 280 figs.; CHEJSIN C.R. Ac. Sci. Leningr. 1930 p. 659 figs.

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*Ancistruma isseli* sp. n., KAHL Tierwelt Deutschlands 21 p. 181 figs.

*Anoplophrya* sp., from gut of earthworm, EKSEMPLARSKAJA 211.

*Aristerostoma marinum* sp. n., KAHL Tierwelt Deutschlands 21 p. 181 figs.

*Balononema (Uronema)* gen. n. *biceps*, *dubium*, KAHL Tierwelt Deutschlands 21 p. 181 figs.

*Branchioecetes (Loxophyllum)* gen. n., *aselli*, *gammari*, KAHL Tierwelt Deutschlands 21 p. 181 figs.

*Bresslaia* gen. n. *vorax*, *discoidea* spp. n., KAHL Tierwelt Deutschlands 21 p. 181 figs.

*Bryophrya* gen. n. *bavariensis* sp. n., KAHL Tierwelt Deutschlands 21 p. 181 figs.

*Bryophyllum* gen. n. *loxophylliforme*, *penardi*, *tegularum*, *lieberkühni* spp. n., KAHL Tierwelt Deutschlands 21 p. 181 figs.

*Chilodonella bavariensis*, *aplanata*, *convexa*, *wisconsinensis*, *algivora*, *helgolandica* spp. n., KAHL Tierwelt Deutschlands 21 p. 181 figs.

*Chilodontopsis elongata*, *muscorum* spp. n., KAHL Tierwelt Deutschlands 21 p. 181 figs.

*Chlamydodon obliquus* sp. n., *triquetrus* var. *major* var. n., KAHL Tierwelt Deutschlands 21 p. 181 figs.

*Choanostoma* gen. n. *pingi* sp. n. (Encheliniidae), fresh-water, China, WANG Contrib. Biol. Lab. Sci. Soc. China 6 p. 105 figs.

*Chromidina (elegans?)*, from kidney of cephalopod, *Spirula*, JEPPE 325.

*Clathrostoma pseudoparamecium* sp. n., KAHL Tierwelt Deutschlands 21 p. 181 figs.

*Cinetochilum marinum* sp. n., KAHL Tierwelt Deutschlands 21 p. 181 figs.

*Colpoda irregularis*, *tripartita*, *patella*, *simulans*, *reniformis*, *californica*, *fastigata*, *colpidiopsis*, *penardi* spp. n., KAHL Tierwelt Deutschlands 21 p. 181 figs.

*Conchophthiridae* fam. n., KAHL Tierwelt Deutschlands 21 p. 181 figs.

*Cristigera penardi* sp. n., KAHL Tierwelt Deutschlands 21 p. 181 figs.

*Cyclidium terricola*, *oblongum*, *granulosum*, *pellucidum*, *musculicola* spp. n. *brandoni* nom. n. for *Pleuronema cyclidium*, KAHL Tierwelt Deutschlands 21 p. 181 figs.

*Deixotrichides (Deixotricha)* gen. n. *centralis*, KAHL Tierwelt Deutschlands 21 p. 181 figs.

*Dileptus anguillula*, *falciformis*, *amphileptoides*, *binucleatus*, *conspicuus alpinus*, *gracilis*, *americanus* spp. n., KAHL Tierwelt Deutschlands 21 p. 181 figs.

*Disematostoma minor* sp. n., KAHL Tierwelt Deutschlands 21 p. 181 figs.

*Drepanomonas sphagni* sp. n., KAHL Tierwelt Deutschlands 21 p. 181 figs.

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*Frontonia microstoma*, *algivora* spp. n., *acuminata* var. *angusta* var. n., KAHL Tierwelt Deutschlands 21 p. 181 figs.

*Hartmannula entzi* sp. n., KAHL Tierwelt Deutschlands 21 p. 181 figs.

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*Hemiophrys marina*, *musculicola*, *rotunda*, *bivacuolata*, *aselli* spp. n., KAHL Tierwelt Deutschlands 21 p. 181 figs.

*Histiobalantium majus* sp. n., KAHL Tierwelt Deutschlands 21 p. 181 figs.

*Holophrya latericollaris* sp. n., fresh water, China, WANG Contrib. Biol. Lab. Sci. Soc. China 6 p. 105 figs.

*Kreyella* gen. n. *musculicola* sp. n., KAHL Tierwelt Deutschlands 21 p. 181 figs.

*Lembidae* fam. n., KAHL Tierwelt Deutschlands 21 p. 181 figs.

*Lemboides* gen. n. *digitiformis*, *ros-trata* spp. n., KAHL Tierwelt Deutschlands 21 p. 181 figs.

*Lembus kenti*, *longivelatus*, *reesi*, *anguilla* spp. n., KAHL Tierwelt Deutschlands 21 p. 181 figs.

*Lionotus anguilla*, *muscorum* spp. n., KAHL Tierwelt Deutschlands 21 p. 181 figs.

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*Loxophyllum multiplicatum* sp. n., KAHL Tierwelt Deutschlands 21 p. 181 figs.

*Microthorax elegans* sp. n., KAHL Tierwelt Deutschlands 21 p. 181 figs.

*Nassula gracilis*, *citrea*, *pusilla*, *exigua*, *musculicola* spp. n., KAHL Tierwelt Deutschlands 21 p. 181 figs.

*Ophryoglena inquieta*, *utriculariae*, spp. n., KAHL Tierwelt Deutschlands 21 p. 181 figs.

*Paramecium traunsteineri*, *chilodonides* spp. n., KAHL Tierwelt Deutschlands 21 p. 181 figs.

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*Physalophrya* (*Glaucoma*) gen. n. *spumosa*, *cylindrica*, KAHL Tierwelt Deutschlands 21 p. 181 figs.

*Plagiopyla ovata*, *marina*, *frontata* spp. n., KAHL Tierwelt Deutschlands 21 p. 181 figs.

*Platynema* gen. n. *hyalinum* sp. n., KAHL Tierwelt Deutschlands 21 p. 181 figs.

*Pseudoglaucoma* gen. n. *labiata*, *muscorum* spp. n., KAHL Tierwelt Deutschlands 21 p. 181 figs.

*Saprophilus chlorophagus*, *muscorum* spp. n., KAHL Tierwelt Deutschlands 21 p. 181 figs.

*Sciadostoma marinum*, *minutum* spp. n., KAHL Tierwelt Deutschlands 21 p. 181 figs.

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*Trochiloides* (*Ervilia*) gen. n. *striata*, *recta*, *crassa*, *dubia*, KAHL Tierwelt Deutschlands 21 p. 181 figs.

*Uronema filificum* sp. n., KAHL Tierwelt Deutschlands 21 p. 181 figs.

*Uronemopsis* (*Uronema*) gen. n. *kenti*, KAHL Tierwelt Deutschlands 21 p. 181 figs.

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*Balantioides* gen. n. (nom. n. for *Balantidium coli*—type-species), ALEXEIEFF 9.

*Euplotes minuta*, *salina* spp. n. Tidal pools, Puget Sound, Yocom Pub. Puget Sd. Mas. Biol. St. 1930 p. 241 figs.

*Gastrostyla philippinensis* sp. n. soil Philippines, SHIBUYA Proc. Imp. Acad. Tokyo 7 p. 124 figs.

*Parafolliculina röstensis* sp. n. Lofoten, DONS Forh. Vidensk. Selsk. 3 p. 173 figs.

*Plagiopyla frontata*, *ovata*, spp. n., *nasuta* var. *wetzelii* var. n. Brackish water, KAHL Ann. Protist. 3 p. 111 figs.

*Sonderia sinuata*, *schizostoma*, *macrochilus*, *tubigula* spp. n. Brackish water, KAHL Ann. Protist. 3 p. 111 figs.

*Stentor oligonucleatus* sp. n., Mexico, SAMANO & SOKOLOFF Monogr. Inst. Biol. Mexico 1 p. 5 figs.

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*Codonella minuta* sp. n. Gulf of Salonika, ATHANASSOPOULOS Bull. Inst. océanogr. Monaco 1931 p. 1 figs.

*Diplodinium (Polyplastron) longitergum* sp. n., from sheep's rumen, HSIUNG Bull. Fan Memor. Inst. Biol. 2 p. 29 figs.

*Ditoxum hamulus*, *D. brevinucleatum* spp. n., from zebra, *Equus boehmi*, STRELKOW Zool. Anz. 94 p. 37 figs.

*Spirodinium nanum*, *S. ferrum equinum* spp. n., from zebra, *Equus boehmi*, STRELKOW Zool. Anz. 94 p. 37 figs.

*Tintinnopsis annulata*, *para-radix*, *para-campanula*, spp. n. Gulf of Salonika, ATHANASSOPOULOS Bull. Inst. océanogr. Monaco 1931 p. 1 figs.

*Tintinnus salonicanus* sp. n. Gulf of Salonika, ATHANASSOPOULOS Bull. Inst. océanogr. Monaco 1931 p. 1 figs.

*Triadinium elongatum* sp. n. from zebra, *Equus boehmi*, STRELKOW Zool. Anz. 94 p. 37 figs.

*Trifascicularia* gen. n. *cycloposthium* sp. n., from zebra, *Equus boehmi*, STRELKOW Zool. Anz. 94 p. 37 figs.

*Tripalmaria dogieli* f. n. zebrae, from zebra, *Equus boehmi*, STRELKOW Zool. Anz. 94 p. 37 figs.

(d) Hypotrichida.

[Vacant.]

(e) Peritrichida.

*Cothurniopsis entzii*, *rheotypica* spp. n. fresh-water lake Hungary, STILLER Arb. Ung. Biol. Forsch. Inst. 4 p. 171 figs.

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*Trichodina okajimae* sp. n., from salamander, *Hynobius tokyoensis*, Japan, IBARA J. Elisha Mitchell Sci. Soc. 46 p. 214 figs.

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*Endosphaera engelmanni*, morphology and parasitism in *Opisthonecta henneyi* (Vorticellid) described, LYNCH & NOBLE 433.

*Parapodophrya* gen. n. *denticulata*, *nigricans*, *sparganium*, *typa* spp. n., KAHL Arch. Protistenk. 73 p. 423 figs.

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*Eperythroozon perekropovi* sp. n., from blood of pike, YAKIMOFF 709.

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III. PORIFERA OR SPONGIDA

BY

M. BURTON, M.Sc

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†*Peronella* ? *dubia* sp. n. Carboniferous U.S.A., WELLER Trans. Illinois Acad. Sci. 23 p. 456.

*Sycetta antarctica* sp. n. Antarctic, BRØNSTED Deutsche Südpolar-Exped. 20 p. 23 fig. 20.

*Sycon lendenfeldi* p. 757 pl. xx fig. 9 text-fig. 8, *verum* p. 770 fig. 9 spp. n., *carteri*, *ensiferum*, *minutum* figured, Australia, ROW & HOZAWA Sci. Rep. Tôhoku Imp. Univ. 6.

*Tenthrenodes primitivus* sp. n. Antarctic, BRØNSTED Deutsche Südpolar-Exped. 20 p. 24 figs. 21-23.

*Vosmaeropsis dendyi* sp. n. Australia, ROW & HOZAWA Sci. Rep. Tôhoku Imp. Univ. 6 p. 777 pl. xx fig. 11 text-fig. 10.

#### "FRESHWATER."

Alphabetical list of known species, GEE 14; some Chinese spp. figured, GEE & WU 23; of Australia and New Zealand, GEE 21; Java, ARNDT, 3a.

*Ephydatia fortis* fig., GEE 17; *E. mülleri*, *fluviatilis* var. *chui*, GEE 20.

*Heteromeyenya conigera* sp. n. U.S.A., OLD Trans. Amer. Micr. Soc. Menasha 50 p. 298 pl. xxviii.

*Parmula batesi* fig., CORDERO 11.

*Spongilla clementis*, *microsclerifera* figs., GEE 17.

*Trochospongilla* revision of species, GEE 16; *T. latouchiana pasigensis* var. n. Manila, GEE Peking Nat. Hist. Bull. 6 p. 14 fig. 7; *T. phillottiana* var. *tunghuensis*, *horrida* var. *ningpoensis* figs., GEE 20.

*Uruguay coralloides* fig., CORDERO 11.

#### HEXACTINELLIDA.

†*Asteractinella audax* sp. n. Carboniferous U.S.A., WELLER Trans. Illinois Acad. Sci. 23 p. 455.

†*Hyalostelia diabola* sp. n. Carboniferous U.S.A., WELLER Trans. Illinois Acad. Sci. 23 p. 455.

†*Rhakistella* gen. n. *alba* sp. n. Carboniferous U.S.A., WELLER Trans. Illinois Acad. Sci. 23 p. 455.

†*Tholiasterella* ? *trunca* sp. n. Carboniferous U.S.A., WELLER Trans. Illinois Acad. Sci. 23 p. 456.

(N-3346 h)q

#### TETRAXONIDA.

##### (i) HOMOSCLEROPHORA.

[Vacant.]

##### (ii) STREPTASTROSCLEROPHORA.

[Vacant.]

##### (iii) ASTROSCLEROPHORA.

*Penares orthotriaena* sp. n. Natal, BURTON Ann. Natal Mus. 6 p. 338 fig. 1.

†*Geodites pateus*, *deflecturus*, *bifurcatus* spp. n. Carboniferous U.S.A., WELLER Trans. Illinois Acad. Sci. 23 p. 455.

##### (iv) LITHISTIDA.

[Vacant.]

##### (v) SIGMATOSCLEROPHORA.

*Auletta syncircularia* Schmidt re-described; BURTON 10a.

*Clathria cullingworthi* sp. n. p. 345 pl. xxiii figs. 3-4 text-fig. 4, *juncea* figured, Natal, BURTON Ann. Natal Mus. 6.

*Cliona klugei* sp. n. Kola Fiord, MUKUSCHOK Trav. Sta. biol. Murman Soc. Nat. 2 1926 p. 89 figs. 1-7.

*Crella donsi* sp. n. Norway, BURTON Kgl. Norske Vidensk. Selsk. 4 p. 136 fig. 1.

*Echinodictyum marleyi* sp. n. Natal BURTON Ann. Natal Mus. 6 p. 348 pl. xxiii figs. 8-9 text-fig. 6.

*Ectyoplasia* gen. n. (Type:—*Spongia tabula* Lamarck), TOPSENT Arch. Mus. Paris 5 1930 p. 23.

*Halichondriella* gen. n. *corticata* sp. n. Norway, BURTON Kgl. Norske Vidensk. Selsk. 4 p. 137 fig. 2.

*Hallmannia* gen. n. *spirophora* sp. n. Natal, BURTON Ann. Natal Mus. 6 p. 352 pl. xxiii fig. 12 text-fig. 8.

*Hemiasrella vasiformis* figd., BURTON 9.

*Marleyia* gen. n. *irregularis* sp. n. Natal, BURTON Ann. Natal Mus. 6 p. 346 pl. xxiii fig. 6 text-fig. 5.

*Myxilla pygmaea* sp. n. Natal, BURTON Ann. Natal Mus. 6 p. 342 pl. xxiii fig. 1.

*Pseudaxinella allenii* sp. n. British Isles, BORLEY J. Mar. Biol. Ass. Plymouth 17 p. 843 figs. 1-2.

*Pseudaxynissa tenuispicula* sp. n. Natal, BURTON Ann. Natal Mus. 6 p. 350 pl. xxiii fig. 10.

†*Reniera area, siliqua*, p. 454, *phaseola* p. 455 spp. n. Carboniferous U.S.A., WELLER Trans. Illinois Acad. Sci. 23.

*Siphonocalypta* gen. n. (Genotype—*Auleta elegans* Vosmaer) BURTON Kgl. Norske Vidensk. Selsk. 4 p. 140 fig. 1.

*Spirastrella excentrica* sp. n. Tanganyika, BURTON Ann. Natal Mus. 6 p. 351 fig. 7.

*Suberites paradoxus* sp. n. Chesapeake Bay, WILSON J. Elisha Mitchell Sci. Soc. 46 p. 167.

*Tetilla laminaris symmetrica* var. n. Chesapeake Bay, WILSON J. Elisha Mitchell Sci. Soc. 46 p. 168.

*Torochalina dendyi* sp. n. Natal, BURTON Ann. Natal Mus. 6 p. 340 fig. 2.

*Trachyopsilla* gen. n. *glaberrima* sp. n. Norway, BURTON Kgl. Norske Vidensk. Selsk. 4 p. 138 figs. 3, 4.

#### EUCERATOSA.

*Aplysina caespitosa* figd., BURTON 9.

*Spongelia chalinoides* sp. n. Natal, BURTON Ann. Natal Mus. 6 p. 355 fig. 9.

*Stelospongos costifera, operculum* figs., BURTON 9.

*Thorecta crassior* sp. n., TOPSENT Arch. Mus. Paris 5 1930 p. 38.

#### INCERTAE SEDIS.

†*Amblysiphonella alpina* sp. n. Carboniferous Austria, PELTZMANN Mitt. naturw. Ver. Steierm. 67 1930 p. 123 pl. ii figs. 1-5.

# IV. COELENTERATA

ARRANGED BY

A. KNYVETT TOTTON.

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*Prayidae* p. 529, BIGELOW 8.

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*Protohydra caulleryi* sp. n. Indo-China, DAWYDOFF Arch. Zool. exp. gén. Notes et Rev. Paris 70 p. 55.

*Pseudoclytia longleyi* sp. n., Tortugas, BURKENROAD Biol. Bull. Woods Hole 61 p. 116 fig.

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†*Stromatopora alaica* sp. n. Turkestan p. 512 figs., RIABININ Bull. Geol. & Prosp. Serv. U.S.S.R. 50 1931.

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†*Syringostroma weberi* sp. n. Turkestan p. 513 figs., RIABININ Bull. geol. & Prosp. Serv. U.S.S.R. 50 1931.

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#### ZOANTHARIA.

*Acanthastrea hemprichii* p. 163, FAUSTINO 39.

*Acanthocyathus spinicarens* p. 71 figs., FAUSTINO 39.

†*Acervularia* p. 85, *ananas*, var. *singularis* p. 88 figs.; *densa* sp. n. L. Salopian, N. Gotland p. 89 fig.; *exigua* sp. n. Salopian, Gotland p. 89 figs.; *conglomerata* p. 90 figs.; *breviseptata*; *caespitosa* p. 91 figs., SMITH & LANG Ann. Mag. Nat. Hist. (10) 8 1931; †*A. chalkii* sp. n. p. 94 fig. Silurian Limestone, Lilydale, Victoria, CHAPMAN Vict. Nat. Melbourne 48 1931.

*Acrhelia horrescens* p. 108 fig., FAUSTINO 39.

*Acropora* (*Eumadrepore*) *arbuscula* p. 258 fig.; *formosa* p. 259 figs.; *luzonica* p. 261 figs.; *manni* p. 263 figs., FAUSTINO 39; *A. (Tylopora) canalis* p. 275 figs., FAUSTINO 39; *A. (Lepidocyathus) convexa* p. 270; *prostrata* p. 271 figs., *subulata* p. 272 figs., *obscura* p. 272 figs., FAUSTINO 39; *A. (Trachylopora) echinata* p. 278 figs., FAUSTINO 39; *A. (Distichocyathus) elegans* p. 279; *parilis* figs.; *angulata* figs. p. 280, FAUSTINO 39; *A. (Isopora) palifera* p. 273 figs.; *hispida* p. 275 fig., FAUSTINO 39; *A. (polystachis) cerealis* p. 266 figs.; *dissimilis* p. 267 figs.; *arcuata* p. 268 figs., FAUSTINO 39; *A. (Rhabdocyathus) variabilis* p. 276; *carduus* p. 277 figs., FAUSTINO 39.

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*Actinia equina* Black Sea p. 695, BORCEA 13; *A. equina*, GILLESPIE 51; *A. fragacea* Gosse, TEISSIER & TEISSIER 163a.

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†*Amphiastrea languinei* p. 532 figs., Madagascar, BESAIRE 7.

†*Amphihelia papillosa* p. 11 fig., GLIBERT 52; †*A. reflexa* p. 70 fig., MONTANARO 104.



†*Amplexus* cf. *lojopingensis* p. 235 figs., GRABAU 53.

*Antillia constricta* p. 152 figs., FAUSTINO 39.

*Arachnactis albida* p. 4, LELOUP 90.

*Arachnanthus sarsii* p. 9, CARLGREN 21.

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†*Archaeophyllidae* fam. n. (*Archaeocyathinae*) p. 60, *Archaeophyllum* gen. n. p. 61, *edelsteini* sp. n. p. 62 figs.; *borissiakii* sp. n. p. 62 figs. Cambrian, Siberia, VOLOGDIN *Archaeocyathinae* of Siberia 1931.

†*Astraraea multiradiata* p. 40 figs.; *media* p. 42 figs.; *submedia* sp. n. p. 45 figs.; *columellata* sp. n. p. 46 figs.; *vaughani* p. 50 figs.; *magnifica* sp. n. p. 52 figs.; *latistellata* p. 53 figs.; *tenuiseptata* sp. n. p. 55 figs., OPPENHEIM *Die Anthozoen der Gosau-Sch.* 1930.

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†*Astogyra* p. 307, *edwardsi* p. 308 figs., OPPENHEIM 108.

*Balanophyllia bairdiana* fig., VAN DER HORST 68; *B. imperialis* p. 224; *parallela* p. 225 figs.; *affinis* p. 228 figs.; *tenuis* p. 232 fig.; *cumingii* p. 233 fig.; *parvula* p. 234 figs., FAUSTINO 39; †*B. tenuistriata* p. 3 fig., GLIBERT 52; *B. (Thecopsammia) fistula* p. 222 figs.; *gemma* p. 223 figs., FAUSTINO 39.

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*Botrucnidifer norvegicus* p. 10, CARLGREN 21.

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†*Butovia* gen. n. (*Archaeocyathinae*), *serrata* sp. n. p. 63 figs. Cambrian, Siberia, VOLOGDIN *Archaeocyathinae* of Siberia 1931.

*Cactosoma arenaria* sp. n. California p. 39 fig., CARLGREN Ark. zool. Stockholm 23 A 3 1931.

†*Campophyllum* sp. indet p. 69 figs., FOMITCHEV 45; †*C. multiseptatum*; *longiseptatum* spp. n. Kousnetz p. 602 figs., TOLMACHOFF *Faune calc. carb. bassin Kousnetz* 2nd pt. 1931.

†*Caninia concava*, LEWIS p. 236 figs. 93; †*C. patula* p. 609 figs.; *tomienensis* sp. n. Kousnetz p. 609 figs.; *derjawni* p. 610; *poljenowi*; *opposita*; *tersiensis* p. 611; *tictensis*; *tictae* p. 612 figs. spp. n. Kousnetz, TOLMACHOFF *Faune calc. carb. bassin Kousnetz* pt. 2 1931; †*C. patula* var. *tomienensis* p. 59 figs.; *cylindrica* p. 62 figs.; *ussowi* p. 63 figs.; *tictaensis* p. 65 figs.; sp. indet. p. 65 fig., FOMITCHEV 45.

†*Caninophyllum* aff. *patulum* p. 551, SMYTH 149.

*Caryophyllia ambrosia*; *ephyala* p. 3; *cincticulatus*; *gigas* sp. n., Indian Ocean p. 4 pl. ii figs. 1, 4, VAN DER HORST Rec. Ind. Mus. Calcutta 33 1931; †*C. clavus* p. 70 fig.; *felsina* p. 71 fig., var. *gigantea* var. n. p. 71 fig., MONTANARO 104; *C. cultrifera* p. 67 figs., *scobinosa* p. 89 figs., *ephyala* p. 69; *rugosa* p. 70 figs., FAUSTINO 39.

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*Ceriantheomorpha* gen. n. (*Ceriantharia*) p. 1, *brasilienis* sp. n. S. Paulo p. 2 figs., CARLGREN Ark. Zool. Stockholm 23 A 2 1931.

*Cerianthula atlantica* sp. n. Atlantic p. 61 figs., CARLGREN Ark. zool. Stockholm 23 A 2 1931.

†*Circophyllia o'gormanii* sp. n. Biron p. 383 figs., DOLLFUS Bull. Soc. Géol. Fr. 29 1929.

*Citharocyathus* p. 78 figs., FAUSTINO 39.

†*Cladangia conferta* p. 69 fig., MONTANARO 104.

†*Cladocora coespitosa* p. 69 fig., MONTANARO 104; *C. moseleyi* nom. nov. (for *C. conferta* Moseley 1881) p. 112, FAUSTINO 39; †*C.* p. 359, *simonyi* p. 360; *tenuis* p. 361 figs.; *libidinum* sp. n. p. 362 fig.; *ornata* p. 363 figs., OPPENHEIM Die Anthozoen der Gosau-Sch. 1930.

†*Cladocoropsis mirabilis* pl. i figs. 1-7, RENZ 130.

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†*Columnastraea* p. 476, *striata* p. 478 fig., *variolaris* p. 481 figs., OPPENHEIM 108; †*C. antiqua* p. 165 figs., WEAVER 177.

†*Comoseris jacobii* p. 547 figs., BESAIRE 7.

†*Confusastraea leptophylla* p. 168, OPPENHEIM 108.

†*Convexastraea weaveri* p. 164 fig., WEAVER 177.

†*Coscinocyathus elongatus*; *vesica* p. 56 figs.; *calathus*; *cornucopiae*; *campanula* p. 57 figs.; *dianthus elegans* sp. n. p. 58 figs.; *cancellatus*; *taylora* sp. n. p. 59 figs. Cambrian, Siberia, VOLOGDIN Archaeocyathinae of Siberia 1931; †*C. simplex* sp. n. p. 74 figs.; *verticillus*; *retetabulae* sp. n. p. 75 figs.; *elongatus*; *cornucopiae* p. 76 figs.; *rarus* sp. n. p. 77 figs. Cambrian, Siberia, VOLOGDIN Archaeocyathinae of Siberia 1931.

†*Craterophyllum* gen. n. p. 614, *abyssum* p. 614 figs. sp. n. Kousnetzky, TOLMACHOFF Faune calc. carb. bassin Kousnetzky pt. 2 1931.

†*Cravenia rhytoides* p. 553 fig., SMYTH 149.

†*Cryptocoenia decamera* p. 163 fig., WEAVER 177.

†*Cyathaxonina* aff. *krotowi* p. 5 fig., HERITSCH 64.

*Cyathoceras tydemani* p. 65 figs., FAUSTINO 39.

†*Cyathoclesia tubernaculum*, DELÉPINE 34.

†*Cyathophyllum* sp. indet. p. 68 figs., FOMITCHEV 45.

†*Cyathoseris* p. 240, *haidingeri* p. 242, OPPENHEIM 108.

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*nikitini*; *yanischevskii* spp. n. p. 50 Cambrian, Siberia, VOLOGDIN Archaeocyathinae of Siberia 1931; †*C. tersiensis* sp. n. p. 87 figs.; *polyseptum* sp. n. p. 89 figs.; *annulispinosus* sp. n. p. 90 Cambrian, Siberia, VOLOGDIN Archaeocyathinae of Siberia 1931.

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†*Cystiphyllum omphymiforme* sp. n. Upper Silurian Kweichan p. 233 figs., GRABAU Bull. Geol. Soc. China Peking 9 3 1930.

†*Dasmiospis* gen. n. (Trochomilidae) p. 541, *lamellicostata* p. 542, OPPENHEIM 108.

*Deltocyathus italicus* p. 74; *lens* p. 75 figs.; *magnificus* figs., var. *suluensis* p. 76, FAUSTINO 39; *D. rotulus*, VAN DER HORST 68.

*Dendrophyllia micranthus* p. 218 figs.; *pusilla* p. 221 figs., FAUSTINO 39; †*D. guidotti* p. 65 fig., MONTANARO 104; *D. oldroydi* sp. n. California p. 286 fig., FAUSTINO Philipp. J. Sci. Manila 44 3 1931.

†*Densiphyllum* sp. indet. p. 70 fig., FOMITCHEV 45.

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†*Diplophyllum* p. 86, SMITH & LANG 148.

†*Diploria* p. 389, *crasse-lamellosa* p. 390 fig.; *lattisinuata* p. 391 fig., OPPENHEIM 108.

*Discotrochus dentatus* p. 63 figs., FAUSTINO 39.

†*Disophyllum* gen. n. p. 613 *symmetricum*; *subrectum* p. 613 figs. sp. n. Kousnetzki, TOLMATCHOFF Faune Calc. Carb. Bassin Kousnetzki 2nd Part 1931.

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†*Elasmophyllia* p. 289, *deformis* p. 290 figs., OPPENHEIM 108.

†*Elephantaria* gen. n. (*Poritidae*) p. 1, *lindstroemi* sp. n. p. 2 figs., OPPENHEIM Die Anthozoen der Gosau-Sch. 1930.

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†*Enygmophyllum* gen. n. *taidonensis* sp. n. Koznetsk basin p. 71. figs., FOMITCHEV Trans. Geol. Prosp. Serv. U.S.S.R. 49 1931.

†*Eomontipora* gen. n. (*Montiporidae*) *harrisoni* sp. n. Honduras p. 93 pl. iii figs. 1-5, GREGORY Ann. Mag. Nat. Hist. (10) 7 1931.

†*Epiphaxum Murchisoni* p. 22 figs., *vermiculatum* p. 24 figs.; *lithothamnoides* sp. n. 25 fig., OPPENHEIM 108.

†*Ethmophyllum ceratodictyoides* sp. n. Lower Cambrian Nevada, RAYMOND Bull. Mus. Comp. Zool. Harvard 55 p. 176 pl. ii figs. 1-2; †*E. edelsteini* sp. n. Cambrian, Siberia p. 47 figs., VOLOGDIN Archaeocyathinae of Siberia 1931.

†*Eugyra cucullata* sp. n. S. Cesarea: Turonian p. 15 figs., ZUFFARDI-COMERCI Boll. Com. Geol. Ital. 55 7 1930.

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†*Felixastraea* gen. n. p. 242, *zitteli* p. 243 figs., OPPENHEIM Die Anthozoen der Gosausch. 1930.

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†*Fungia* cf. *granulosa* p. 51 fig., HANZAWA 62; *F. patella* p. 168 figs.; *distorta* p. 170 fig.; *cyclolites* p. 171 fig.; *actiniformis* p. 172 figs., var. *suluensis* p. 173 figs., var. *palawensis* p. 174 figs.; *paumotensis* p. 174 figs.; *scutaria* p. 175 figs.; *echinata* p. 176 figs.; *scabra* p. 176 figs.; *concinna* p. 177 figs.; *repinda* p. 178 figs.; *samboangensis* p. 180 figs.; *dinai* p. 181 figs.; *fungites* p. 183 figs.; *discus* p. 184 figs.; *freycineti* p. 185 fig., FAUSTINO 39.

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†*Hadrophyllum apilatum* p. 46 pl. 7 fig. 3, PLUMMER & MOORE 119.

*Halcampella maxima* p. 28 figs.; *robusta* sp. n. (37° S. 10° W.) p. 30 fig., CARLGREN Ark. zool. Stockholm 23 A 3 1931.

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†*Heliastrea* p. 314, *simonyi* p. 316 fig.; *corollaris* p. 318 fig.; *pediculata* p. 320; *lilli* p. 322 fig.; *exsculpta* p. 324 figs.; *tenuisepta* sp. n. p. 324 figs.; *lepada* p. 325 figs., OPPENHEIM Die Anthozoen der Gosau-Sch. 1930.

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†*Herpetolitha* cfr. *stricta* p. 51 fig., HANZAWA 62.

†*Heterocoenia* p. 257, *grandis* p. 262 figs.; *stachei* figs.; *fuchsi* figs. p. 264; *provincialis* p. 265 figs.; *crasselamellata* p. 268; *exigua* p. 269; *dendroides* p. 270 figs.; *fromenteli* sp. n. p. 271 fig.; *verrucosa* p. 272 fig.; *oculinaeformis* p. 274; *costata* p. 275, OPPENHEIM Die Anthozoen der Gosau-Sch. 1930.

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*Hoplangia pallaryi*, figs., JOUBIN 76.

*Hydnophora exesa* p. 149 figs.; *rigida* p. 151 fig., FAUSTINO 39.

†*Hydnophoraraea* gen. n. (*Hydnophora* aut., non Fischer von Waldheim) p. 219, *styriaca* p. 224 figs.; *grandiconus* sp. n. p. 226 figs.; *parviconus* sp. n. p. 227 figs.; *longiconus* sp. n. p. 227 figs.; *multilamellosa* p. 228 figs.; *rapulum* sp. n. p. 230 figs.; *aconus* sp. n. p. 232 figs.; *kossmati* p. 233 figs.; *hydnophylloides* sp. n. p. 235 figs., OPPENHEIM Die Anthozoen der Gosau-Sch. 1930.

†*Hymenophyllia* p. 376, OPPENHEIM 108.

†*Isastrea* p. 373, *hoernesi* p. 374; *reussiana*; *tenera* p. 375, OPPENHEIM 108.

*Isoedwardsia mediterranea* sp. n. Messina p. 24 figs.; *curaçaoensis* p. 26 fig., CARLGREN Ark. zool. Stockholm 23 A 3 1931.

†*Kwangisphyllum* nom. nov. for *Syringophyllum* Grabau and Yoh 1929 (non *Syringophyllum* Edwards and Haime 1850), YOH 186.

†*Labyrinthomorpha* gen. n. (*Archaeocyathinae*) *tolli* sp. n. Cambrian, Siberia, p. 35 figs., VOLOGDIN *Archaeocyathinae* of Siberia 1931.

†*Lasmogyra* p. 299, *fenestrata* p. 300; *gracilis* p. 301 figs.; *tortuosa* p. 302 figs.; *occitanica* p. 303 figs.; *sinuosa* p. 304 figs.; *subgracilis* p. 306 figs., OPPENHEIM Die Anthozoen der Gosau-Sch. 1930.

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*bottae* p. 121 figs., FAUSTINO 39.

†*Leptophyllia* p. 135; *clavata* p. 136;  
*irregularis* p. 139; *regularis* sp. n. p. 140  
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# V. ECHINODERMA

ARRANGED BY

A. G. BRIGHTON, M.A.

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†*Hyboclypeus wrighti*, MAIRE 98 p. 137 pl. i figs. 25-26.

†*Hypodiadema* cf. *arrabidense*, *H. incertum*, *H. zequellense*, LAMBERT 89 p. 24.

†*Isomicraster brueti* sp. n. Cretaceous Tunisia, LAMBERT Mém. Soc. géol. France N.S. 16 p. 101 pl. iv figs. 8-9.

†*Laganum depressum*, BRIGHTON 15.

†*Lambertiaster douvillei* with var. *ficheuri*, LAMBERT 89 p. 77.

†*Leiocidaris hemigranosus*, ADKINS 2 p. 271 pl. xiv fig. 2.

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†*Lepidesthes warrenensis* sp. n. Upper Devonian or Lower Carboniferous U.S.A., COOPER Amer. J. Sci. New Haven 22 pp. 531-538 2 figs.

†*Linthia rolandi* sp. n. Eocene France, CASTEX Act. Soc. linn. Bordeaux 82 1930 p. 46 pl. iv figs. 3-5.

†*Loriolia texana*, ADKINS 2 p. 273 pl. i figs. 6-7.

†*Lovenechinus jacksoni* sp. n. Carboniferous Belgium, DEMANET Bull. Mus. Hist. nat. Belg. 7 8 1931 pp. 1-9 figs. 1-7.

†*Lutetiaaster lamberti* sp. n. Eocene France, CASTEX Act. Soc. linn. Bordeaux 82 1930 p. 48 pl. iv figs. 6-8.—*L. heberti* p. 564 pl. xxxiii fig. 3, *subglobosus* p. 563 pl. xxxii fig. 2, COLLIGNON 30.

*Lytechinus verruculatus*, MORTENSEN 119 p. 21 fig. 8 pl. iii fig. 2.

†*Micraster* cf. *corcolumbarium*, LAMBERT 88 p. 9.

†*Macraster meghilensis* p. 100 pl. iv figs. 6-7, *obtritrus* p. 67 pl. iii figs. 8-9, spp. n. Cretaceous N. Africa, Lambert Mém. Soc. géol. France N.S. 16; *M. sylvaticus*, Id. p. 67.—*M. kentensis* pp. 106-108 pl. xi figs. 1-3, 5, *pseudoelegans* pp. 108-110 pl. x figs. 1, 5, pl. xi fig. 4, *obesus* pp. 116-119 pl. x figs. 2-4 pl. xi fig. 6 spp. n. Cretaceous Texas, ADKINS Bull. Univ. Texas Austin 3001 1930; *aguilerae* p. 115, *elegans* p. 111, *nodopyga* p. 110, *texasus* p. 113, *wenoensis* p. 116, Id.—*M.* diagnosis and key to Texas species pp. 294-297, *elegans* p. 295 pl. xiv fig. 4, *nodopyga*

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†*Magnosia termieri* sp. n. Jurassic N. Africa, LAMBERT Mém. soc. géol. France N.S. 16 p. 19 pl. i figs. 17-18.

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†*Miotoxaster*, LAMBERT 89 p. 34.

*Moiria lachesinella* nom. nov. pro *M. lachesis* Mortensen 1930 non *lachesis* Girard & Michelin, MORTENSEN Vidensk. Medd. naturh. Foren. Kjøb. 90 1930 p. 45.

†*Noettingaster lamberti* p. 20 figs. 12-14 pl. i fig. 2, pl. iii fig. 1, pl. iv fig. 1, *millosevichi* p. 14 figs. 6-11 pl. ii, pl. iv figs. 3-4, *sanfilippo* p. 6 figs. 1-5 pl. i fig. 1, pl. iii fig. 2, pl. iv fig. 2, spp. n. Cretaceous Africa, CHECCHIA-RISPOLI Boll. Ufficio geol. Ital. Roma 55 10 1930.—*N. sanfilippo* p. 2 4 figs. pl. i figs. 3-4, *millosevichi* p. 10 pl. i figs. 1-2, CHECCHIA-RISPOLI 26.

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†*Oustechinus* gen. n. for type *O. basseae* sp. n. Jurassic Tunisia, LAMBERT Mém. Soc. géol. France N.S. 16 p. 93 fig. 7 pl. iii figs. 31-32.

†*Paleodiadema gauthieri* sp. n. Cretaceous Algiers, LAMBERT Mém. Soc. géol. France N.S. 16 p. 70 pl. iii fig. 14.

†*Parapygus mossoroensis* sp. n. Cretaceous Brazil, MAURY Mon. serv. geol. min. Brasil 4 1925 pp. 500-503 pl. xxiv fig. 9.

†*Paraster gibberulus*, *P. savignyi*, BRIGHTON 15 p. 328 figs. 2-6.

*Parechinus angulosus*, MORTENSEN  
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†*Petalobrissus setifensis* var. *punica*  
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†*Plegiocidaris huguenini* sp. n. Juras-  
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†*Pliotoxaster*, LAMBERT 89 p. 34.

†*Porosoma kahleri* sp. n. Eocene  
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BundesAnst. Wien 90 1930 pp. 544–546  
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†*Prenaster alpinus*, COLLIGNON 30  
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†*Procassidulus nellneri* sp. n. Cre-  
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†*Progonolampas candeli* sp. n. Miocene  
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†*Psephechinus globosus* sp. n. Jurassic  
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†*Pseudocidaris drogiaca*, MERCIER 110  
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†*Pygaster gerthi* sp. n. Cretaceous  
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—*P. lourdinensis* sp. n. Jurassic France,  
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†*Pyrina parahybensis* sp. n. Cretace-  
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†*Rachiosoma stagnorum* sp. n. Cre-  
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†*Rhabdocidaris bigoti* sp. n. Jurassic  
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†*Schizaster marci* sp. n. Eocene  
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*vicinalis*, LAMBERT 89 p. 81.

†*Schizechinus candeli* sp. n. [?]  
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†*Spatagoides aichinoi* sp. n. Cretace-  
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†*Ectenocrinus elongatus* sp. n. Silurian U.S.A., THOMAS & LADD Univ. Iowa Studies Iowa City 11 8 1926 pp. 12–14 pl. ii figs. 3–8, pl. v figs. 3–4; *E. raymondi*, Id. p. 14 pl. ii fig. 2.

†*Hadrocrinus hispaniae* sp. n. Devonian Spain, SCHMIDT Palaeontographica Stuttgart 76 pp. 7–21 figs. 3–9 pls. i–iii pl. iv fig. 11.

†*Hemimollocrinus* gen. n. for type *H. uralensis* sp. n. Permo-carboniferous Russia, YAKOVLEV Bull. Geol. Prosp. Serv. U.S.S.R. 49 8 1930 p. 97 pl. i fig. 1.

†*Heterocrinus* sp. (?), THOMAS & LADD 164 p. 17 pl. iii figs. 12–14.

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†*Monobrachiocrinus oviformis*, YAKOVLEV 181 p. 98 pl. i fig. 2.

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†*Nereocrinus antiquus*, WANNER 174 p. 6 figs. 2–4 pl. i figs. 8–10.

†*Oceanocrinus granulatus*, WANNER 174 p. 8 pl. i figs. 11–16.

†*Orthocrinus planus* sp. n. Devonian Spain, SCHMIDT Palaeontographica Stuttgart 76 pp. 29–31 fig. 11 pl. iv fig. 1.

*Palaeocomatella* diagnosis p. 153, *P. difficilis* p. 154 figs. 23–24, CLARK 27.

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†*Platyhexacrinus kegei* sp. n. Devonian Spain, SCHMIDT Palaeontographica Stuttgart 76 pp. 27 pl. iv figs. 2-3.

†*Pogocrinus* gen. n. with type *P. raafensis* sp. n. Trias Switzerland, GAGNEBIN Bull. Labs. Univ. Lausanne 47 1930 pp. 1-4 pl. i (*Vide* GAGNEBIN 62 Zool. Record for 1930).

†*Porocrinus fayettensis*, THOMAS & LADD 164 p. 15 pl. ii figs. 9-16 pl. iv fig. 8 pl. v figs. 6-7.

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†*Sphaerocrinus* sp., SCHMIDT 145 p. 28 pl. iv fig. 4.

†*Storthingocrinus labiatus* sp. n. Devonian Spain, SCHMIDT Palaeontographica Stuttgart 76 p. 26 pl. iv fig. 10; *S. cf. haugi*, Id. p. 25 pl. iv fig. 9.

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†*Trimerocrinus platypleura* sp. n. Permo-carboniferous Russia, YAKOVLEV Bull. Geol. Prosp. Serv. U.S.S.R. 49 8 1930 p. 96 pl. i fig. 6.—*T. pumilus*, WANNER 175 p. 1 pl. i figs. 1-5.

†*Ulocrinus uralensis* sp. n. Permo-carboniferous Russia, YAKOVLEV Bull. Geol. Prosp. Serv. U.S.S.R. 49 8 pp. 95-96 pl. i fig. 11.

†*Zeacrinus chesterensis* sp. n. Carboniferous U.S.A., SUTTON & WAGNER J. Paleont. Sharon Mass. 5 pp. 31-33 fig. 1 pl. v figs. 12-14.

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†*Iowacystis* gen. n. for type *I. sagittaria* sp. n. Silurian Iowa, THOMAS & LADD Univ. Iowa Studies Iowa City 11 8 1926 pp. 6-10 pl. i, pl. ii fig. 1, pl. iv 1-6, pl. v 1-2.

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†*Timoroblastus coronatus carinatus* form. n. Permian Timor, WANNER Wetens. Medd. mijnb. Weltevreden 16 1931 p. 51 pl. ii figs. 8-12; *T. coronatus*, Id. p. 50 figs. 3-9.



# VI. VERMES

ARRANGED BY

WILLIAM NICOLL, M.A., D.Sc., M.D.

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*semi-robusta* p. 246 fig. 4, *pseudo-echinostoma* p. 247 fig. 5, *mucobuccalis* p. 248 fig. 6, *tetrasolenata* p. 249 fig. 7, *ovatula* p. 250 fig. 9, *microstyloidea* p. 250 fig. 8, *lactucicauda* p. 253 fig. 14, *cordata* p. 254 fig. 15, *invaginata* p. 254, fig. 16, *pseudo-rivax* p. 255 fig. 11, *divaricata* p. 256 fig. 12, *gigantea* p. 257 fig. 13, spp. n. in molluscs, China, *osafunei*, *nakagawai*, *kobayashii* p. 289, *limnicola*, *planorbium*, p. 290, *nipponensis*, *koreana*, *tetradena*, *melanitarum*, *formosana*, *decima*, *undecima*, *mucopharyngealis*, *hexadena*, *dubiplex*, *creta*, *bulimorum* p. 291, *curiosa*, *simplex*, *ellipsoidea*, *okayamensis*, *picta*, *benigna* p. 292, *viviparum*, *opacichroma*, *pyradorum*, *fulvior*, *nigrogranulosa*, *kanigunensis* p. 293, *contractilis*, *paracaliforniensis*, *introverta*, *problematica* p. 294, *distyloides*, *conoidea*, *diminicum*, *incerta*, *libertina* p. 295, *senoi*, *andot*, *pseudodivaricata*, *paludinarum*, *shinchikuensis*, *parthenicola*, *scripta* p. 296, *longissima*, *redicola*, *longicirura*, *tapidis*, *dubita* p. 297, spp. nomm. n. for larval Trematodes in molluscs, China and Japan, FAUST Amer. J. Hyg. Baltimore 4 1924; *rhodometopi* sp. n. in genital gland of *Turritella communis*, Roscoff, PÉREZ Bull. Soc. Zool. Fr. Paris 49 1924 p. 342; *Tergestia*[e] *Haswelli* [C. Haswelli] sp. n. in sporocysts in *Mytilus latus* (*planulatus*), New Zealand, DOLLFUS Bull. Soc. Zool. Fr. 52 1927 p. 112; *ocellata* La Val. identified as larva of *Trichobilharzia kossarewi* Skrj. and Zakh., BRUMPT C.R. Acad. Sc. Paris 193 1931 pp. 612-614 12 figs.; *parvicaudata* in gonad of *Littorina littorea* p. 264 fig. 5, *sensifera* in *Urosalpinx cinereus* pp. 265-269 figs. 1-4 spp. n., Woods Hole, Mass., STUNKARD & SHAW Biol. Bull. Woods Hole 61 1931; *sudanensis* nos. 1-3 in *Bullinus contortus*, Sudan, ARCHIBALD & MARSHALL Parasitol. Cambridge 23 1931 pp. 273-280 figs. 1-6; *oscillatoria* pp. 89-91 figs. 1-4, *echinomorpha* pp. 94-95 figs. 10-11 in *Planorbis carinatus*, *chromatophora* in *Limnaea stagnalis* pp. 95-96 fig. 12, *pygocytophora* pp. 96-97 figs. 13, 14 spp. n. *limbifera* Seifert pp. 91-93 figs. 5-9, Cheshire, BROWN Parasitol. Cambridge 23 1931; *helvetica* xxxviii sp. n. in *Limnaea palustris* and *Planorbis marginatus*, Switzerland, DUBOIS Bull. Soc. neuchâtel. Sc. nat. 55 (1930) 1931 pp. 45-49 1 fig.; *nicobarica* i-v spp. n. in *Melanoides creber*, India, SEWELL Ind. J. Med. Res. 13 1931 pp. 785-806

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assigned to genus *Steringotrema* p. 397 fig. 1, *globiporum* Linton 1905 nec Rud. syn. of *Homalometron pallidum* Stafford p. 404, MANTER Parasitol. Cambridge 23 1931.

*Echinochasmus euryporus* (Looss) in *Circus aeruginosus* Russia, SKRJABIN Ivestia Don. Vet. Inst. Novotscherkask 2 ii 1920 pp. 4-6 fig. 2; *perfoliatus* (Rátz) var. *japonicus* var. n. in intestine of man, Japan, TANABE J. Okayama Med. Ass. 1922 no. 387 pp. 1-20; *schwartzi* sp. n. in intestine of muskrat, *Ondatra zibethica*, and *Canis familiaris*. N. America, PRICE Proc. U.S. Nat. Mus, Washington 79 iv 1931 pp. 3-7 fig. 2.

*Echinostoma travassossi* sp. n. in *Corvus corax*, SKRJABIN 1924 [n.v.], KALANTARIAN Oeuvres Inst. Trop. Armenie Erivan 1 1924 p. 74.

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*Entosiphonius* gen. n. *Harmostomidae*, *thompsoni* sp. n. in small intestine of *Blarina brevicauda*, SINITSIN Z. Parasitenk. Berlin 3 1931 pp. 821-822 pls. ii, iv, vi.

*Episthmium* gen. n. *Echinostomidae*, type *Distomum bursicola* Creplin, LÜHE Süßwasserfauna Deutschlands Jena 17 i 1909 p. 80.

*Eucotyle zakharovi* sp. n. in *Fuligula cristata*, Russia, SKRJABIN Ivest. Don. Vet. Inst. Novotscherkask 2 ii 1920 pp. 3-4 fig. 3.

*Eumegacetes crassus* (Sieb.) and *E. contribulans* Braun, discussion of status and synonymy, POCHÉ Zool. Anz. Leipzig 32 1907 pp. 99-106.

*Euparadistomum* gen. n. *Dicrocoeliidae*, *varani* sp. n. in gall bladder of *Varanus salvator*, Philippine Islands, TUBANGUI Philipp. J. Sc. Manila 44 1931 pp. 420-422 pl. i fig. 2.

*Euparyphium ilocanum* (Garrison) pp. 274-280 pl. i figs. 1-4, *guerreroi* sp. n. pp. 280-282 pl. ii figs. 1-4, in intestine of rat, *Mus norvegicus*, Philippine Islands, TUBANGUI Philipp. J. Sc. Manila 44 1931; *murinum* sp. n. pp. 543-546 fig. 3, *ilocanum* (Garrison) pp. 539-542 fig. 1, *guerreroi* Tub. p. 542 fig. 2 in intestine of *Mus norvegicus*, Philippine Is., TUBANGUI Philipp. J. Sc. Manila 46 1931.

*Euritrema* [sc. *Eurytrema*] *polymorphum* in gall-bladder of *Myozetetes similis* pp. 19-20 fig. 8, *robustum* in *Harpagus diodon* p. 20 fig. 9, *intermedium* in *Progne chalybea* p. 21 fig. 10, *pulcrum* [sc. *pulchrum*] in un-named bird pp. 21-22 fig. 11 spp. n. Brazil, TRAVASSOS Arch. Escol. Sup. Med. Vet. Niteroy 3 1919.

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*Eurymetra* gen. n. presumably for type *Distomum nigrovenosum* Bellingh. ODHNER Res. Swedish Zool. Exped. Egypt (1901) Upsala 23 A 1910 p. 61; syn. of *Leptophallus* Lühe 1909, ODHNER t.o. p. 166.

*Eurytrema coelomaticum* Giard and Billet syn. of *E. pancreaticum* Janson, DOLLFUS Bull. Soc. Zool. Fr. 47 1922 p. 322; *rebelle* sp. n. in pancreatic duct of dog, Annam, RAILLIET Bull. Soc. Zool. Fr. Paris 49 1924 p. 595; *dajji* Bhalerao syn. of *E. pancreaticum* Janson, and possibility of a new species in the pancreas of the goat, Malaya, PURVIS Vet. Rec. London 11 1931 p. 583 fig. 1 [vide etiam *Euritrema*].

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*Genolopa minuta* in intestine of *Menidia menidia* and *Fundulus majalis* p. 399 fig. 2, *elongata* in *Menidia menidia* pp. 399-400 fig. 3 spp. n. Carolina, MANTER Parasitol. Cambridge 23 1931.

*Gotonia* trib. n. *Prosorhynchinae*,  
PUGLEWSKY Zool. Anz. Leipzig 96  
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*Haematotrephus fodiens* Linton 1928  
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*Bufo viridis*, Russia, ISATTSCHIKOW &  
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1926 pp. 61-159 [n.v.]; syn. of *H.*  
*kessleri* (Greb.) (= *H. ovocaudatus*  
var.), DOLLFUS Ann. Parasit. Paris 9  
1931 p. 192 note i; *perplexus* sp. n. in  
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America, SIMER Amer. Midl. Nat.  
Notre Dame 11 1929 pp. 576-577 figs.  
10-14.

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America, WIGDOR J. Amer. Vet. Med.  
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RANSOM Proc. U.S. Nat. Mus. Washing-  
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*Monascus* Looss 1907, Looss Zool.  
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PALOMBI Ann. Mus. Zool. Univ. Napoli  
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*Haploporus* Benedeni (Stoss.) in  
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*heterocoelium* sp. n. in intestine of  
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*majalis* and *Leiostomus xanthurus*,  
Carolina, MANTER Parasitol. Cambridge  
23 1931 p. 404 fig. 10.

*Hysteroleitha elongata* sp. n. in  
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MANTER Parasitol. Cambridge 23 1931  
p. 407 fig. 21.

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*cephalum*), LÜHE Die Süßwasserfauna  
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*volgensis* sp. n. in blood of *Pelecus*  
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*lacerdai* sp. n. in intestine of *Sula*  
*leucogastra*, TRAVASSOS Mem. Inst.  
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*Pagrosomus auratus* pp. 496-498 pl. xxii  
fig. 15, major on *Sparus australis* p. 498  
pl. xx fig. 3 spp. n. Australia, MURRAY  
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of *Acerina cernua*, R. Dnieper, PIGU-  
LEWSKY Zool. Anz. Leipzig 96 1931  
pp. 16-17 fig. 4.

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*Odhneria* gen. n. *Brachycoeliinae*, *odhneri* sp. n. in intestine of *Dyctanassa violacea*, TRAVASSOS Arch. Escol. Sup. Med. Vet. Nictheroy 5 1921 pp. 64-65 pl. x fig. 3; *bolognensis* Baer 1924 syn. of *Encyclometra colubrimurorum* (Rud.), DOLLFUS Ann. Parasitol. Paris 7 1929 p. 34 note 1.

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*Opisthorchis felineus*, larvae encysted in freshwater fishes, Roumania, CIUREA Rev. Stiint. Vet. Bucarest 11 1930 pp. 1-4 figs. 1-9; *O. (Brachymetra) joyeuxi* sp. n. in subcutaneous cysts in *Discoglossus pictus*, Algeria, BRUMPT Précis de Parasitologie Paris 1922 p. 334 fig. 176, in cysts in *Rana esculenta* var. *ridibunda*, Tunis, JOYEUX Arch. Inst. Pasteur Tunis 12 1923 p. 333, syn. of *Rátzia parva* (Stoss.) in intestine of *Zamenis hippocrepis*, DOLLFUS Ann. Parasitol., Paris 7 1929 pp. 197-200 fig. 1.

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*Orthorchis natricis* Mödinger 1924 syn. of *Encylometra colubrimurorum* (Rud.), DOLLFUS Ann. Parasit. Paris 7 1929 p. 34 note 1.

*Oswaldoia* gen. n. *Dicrocoeliinae*, *oswaldi* sp. n. in liver of *Rhamphocoeilus brazilus*, *Tachyphanus coronatus* and *Molothrus bonasiensis*, TRAVASSOS Arch. Escol. Sup. Med. Vet. Nictheroy 3 1919 pp. 16-17 fig. 6.

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*dryas schotti* pp. 13-14 fig. 4, TRAVASSOS Arch. Escol. Sup. Med. Vet. Nictheroy 3 1919.

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*Parahemiurus parahemiurus* sp. n. in intestine of *Anchovia olida*, Brazil, PEREIRA & Vaz C.R. Soc. Biol. Paris 104 1930 pp. 705-706.

*Paramonostomum* gen. n. *Notocotylidae*, type *Monostomum alveatum* Mehlis, LÜHE Süßwasserfauna Deutschlands Jena 17 i 1909 p. 33; *parvum* sp. n. in intestine of Long Island duck, N. America, STUNKARD & DUNIHUE Biol. Bull. Woods Hole 60 pp. 184-185 fig. 4; *pseudalveatum* sp. n. in intestine of muskrat, *Ondatra zibethica*, North America, PRICE Proc. U.S. Nat. Mus. Washington 79 iv 1931 pp. 9-10 fig. 4.

*Paramphistomum birmense* sp. nom. n. pro *Paramphistomum* sp. Evans and Rennie 1908 in bile ducts of ox, Burma, RAILLIET Bull. Soc. Zool. Fr. Paris 49 1924 p. 600; *explanatum* (Creplin) in stomach of *Hippotragus equinus*, Angola, DUBOIS Bull. Soc. neuchâtel. Sc. nat. 55 (1930) 1931 pp. 85-87 fig. 15.

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*Paraschistosomatium* Price 1929 syn. of *Macrobilharzic* Travassos 1923, PRICE J. Parasitol. Urbana 17 1931 p. 230.

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*Pharyngora gracilis* sp. n. in intestine of silversides, *Menidia menidia*, Carolina, MANTER Parasitol. Cambridge 23 1931 p. 401 figs. 6-7.

*Phyllodistomum enterocolpium* sp. n. in *Diemyctylus pyrrhogaster*, HOLL Ann. Zool. Japon. 12 1930 pp. 449-451 1 pl. syn. of *P. patellare* (Sturges 1897), DOLLFUS Ann. Parasit. Paris 9 1931 p. 192 note 2.

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*Plagiorchis marii* sp. n. in intestine of *Passer domesticus*, Russia, SKRJABIN Ivestia Don. Vet. Inst. Novotscherkask 2 ii 1920 pp. 1-3 fig. 1; *corti* sp. n. in intestine of *Schilbeodes gyrinus*, Wisconsin, LAMONT Occ. Papers Mus. Zool. Univ. Michigan 93 1921 pp. 3-4 pl. i fig. 1; *popowi* sp. n. in intestine of dog, Russia, PALIMPSESTOW Arbeiten 74ten Helminth. Exped. Astrachan 1929 pp. 48-52 [n.v.]; *vespertilionis* Müll. in intestine of *Myotis myotis* and *Rhinolophus hipposideros*, Hungary, MÖDLINGER Stud. Zool. Budapest 1 1930 p. 192 pl. xxi fig. 1; *arvicolae* sp. n. in intestine of water rat, *Arvicola terrestris*, Russia, SCHULZ & SKWORZOW Zeitschr. Parasitenk. Berlin 3 1931 pp. 765-772 3 figs.; *micracanthos* sp. n. in intestine of *Eptesicus fuscus* and *Myotis lucifugus*, North America, MACY J. Parasit. Urbana 18 1931 pp. 28-29 pl. ii figs. 6-7; *anacondae* MacCallum 1921 syn. of *Telorchis clava* (Dies.), ODHNER Ark. Zool. Stockholm 18 A xx 1926 p. 6 footnote 1; (*Multiglandularis*) *mutationis* sp. n. in gulls, PANOWA Trud. Gos. Leningrad. Vet. Inst. 1 1927 p. 52. [n.v.]

*Platynosomum microrchis* Trav. 1916 in liver and gall bladder of *Porzana albicollis* and *Rallus cayennensis* p. 23 figs. 12-13, *angrense* sp. n. in gall bladder of *Attila cinereus* pp. 23-24 fig. 14, Brazil, TRAVASSOS Arch. Escol. Sup. Med. Vet. Niteroy 3 1919.

*Plerogenoides* gen. n. [sc. *Pleurogenoides*] type *Pleurogenes tener* Looss, TRAVASSOS Arch. Escol. Sup. Med. Vet. Niteroy 5 1921 p. 77.

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*Esox lucius*, R. Dnieper, FIGULEWSKY Zool. Anz. Leipzig 6 1931 pp. 9-10 fig. 3.

*Pleurogonius pomacanthi* (MacCall. 1916) in intestine of *Angelichthys ciliaris*, *A. isabelita*, *Pomacanthus arcuatus* and *P. paru*, New York Aquarium, PRICE Proc. U.S. Nat. Mus. 78 xxii 1931 pp. 2-4 fig. 1.

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*Polystoma stunkardi* sp. n. in mouth of turtle, *Pseudemys hieroglyphica*, N. America, HARWOOD J. Parasit. Urbana 18 1931 pp. 98-100 fig. 1.

*Proalaria trilobum* (Rud.) in *Phalacrocorax carbo* and *P. pygmaeus* pp. 294-306 pls. v, xii, xvii, *confusum* (Krause) in *Pelecanus onocrotalus* and *P. crispus* pp. 306-316 pls. v, xiv, xvii, Roumania, CIUREA Arch. Roumaines Path. Expér. Paris 3 1930.

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*Prosorhynchia* trib. n. *Prosorhynchinae*, FIGULEWSKY Zool. Anz. Leipzig 96 1931 p. 10.

*Prosorhynchoides* gen. n. *Gasterostomata*, type *Gasterostomum ovatum* Linton in intestine of *Lobotes surinamensis*, Cameroon, DOLLFUS Faune Colonies Franç. Paris 3 ii 1929 pp. 100-102 figs. 14-17.

*Prosotocus vespertilionis* in intestine of *Myotis myotis* p. 200 pl. xxi fig. 2, Méhelyi p. 201 pl. xxi fig. 4, *trigonostomum* p. 202 pl. xxi fig. 5 in *Eptesicus serotinus*, *amphoraeformis* in *Myotis oxygnathus* p. 202 pl. xx fig. 2 spp. n. Hungary, MÖDLINGER Stud. Zool. Budapest 1 1930.

*Prosthodendrium* gen. n. *Lecithodendriidae*, type *Lecithodendrium dinanatum* Bhalerao to include *L. linstowi* Dollfus, DOLLFUS Ann. Parasit. Paris 9 1931 p. 484.

*Prosthogonimidae* [fam. n.] type *Prosthogonimus* Lühe, NICOLL Parasitol. Cambridge 16 1924 p. 330; POCHÉ Arch. Naturg. Berlin 91 (1925) 1926 p. 129.

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*Pseudamphistomum danubiense* Ciurea syn. of *P. truncatum*, SCHUURMANS-STEKHOVEN Z. Parasitenk. Berlin 3 1931 p. 759.

*Psilochasmus* gen. n. type *Distomum oxyurum* Creplin, LÜHE Süßwasserfauna Deutschlands Jena 17 i 1909 p. 59; *lecithosus* sp. n. in the intestine of duck, Germany, OTTE Berlin. Tierärztl. Woch. 42 1926 p. 444; *oxyurus* (Creplin) in Long Island duck. STUNKARD & DUNIHUE Biol. Bull. Woods Hole 60 1931 pp. 179-182 fig. 2.

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**Crustacea.**—BAYLIS, 66; BRADY, 111; BRINKMANN, 117.

**Insecta.**—CHRISTIE, 186; ESAKI & HASHIMOTO, 278; FUCHS, 322; HARWOOD, 400; LIU, 575; MÜLLER, 705; STEINER, 1034; THOMAS, 1094.

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630; MÖNNIG, 681, 684, 686, 687; MORGAN, 695; OLDHAM, 760; PETERS, 808; PRICE, 837, 838, 845; PRICE & CHITWOOD, 848; PURVIS, 855, 856; RAILLIET & HENRY, 867; RAJEWSKAJA, 868; RATCLIFFE, 875; SCHULZ, 933, 936, 937; SCIACCHITANO, 952; SEDLMEIER, 964; SEURAT, 974; SKINKER, 996; SKRJABIN & WERESCHTAGIN, 1004; SOLANET, 1011; STEFANSKI, 1029; STILES & NOLAN, 1060; TRAVASSOS & VOGELSANG, 1118; TUBANGUI, 1134; W[ARD], 1177; WEGELIN, 1183.

**Domesticated Mammalia.** — Pig: ACKERT & PAYNE, 9; ALMEIDA, 21; MACHADO, 610; OSERSKAJA, 773; SCHWARTZ, 940. Cattle and sheep: ANTIPIN, 30; BENNETTS, 80; DIKMANS, 251; JOHNSTON, 476; LE ROUX, 558, 559; MCGAUGHEY, 609; MALEWITCH, 618; MITTER, 666; NEUMANN, 718; NÖLLER & SCHMID, 733; PETROW & ORLOW, 813; ROSS, 899; SHAW, 979. Horse: BEDERKE, 77; FAURE, 292; LEIPER, 550; NAGATY, 710; PURVIS, 859, 860; SCHWARTZ, IMES & WRIGHT, 948; SMIT & IHLE, 1010; STEFANSKI, 1028; VAZ, 1159. Cat and dog: CHAUDHURI, 175; DIKMANS, 253; FAUST, 299; HALL, 383; PRICE, 835, 846; ST. JOHN, SIMMONS & REYNOLDS, 909; SHAW, 977; SPREHN, 1020; TOYODA, 1108; TRAVASSOS, 1109. Various: HALL, 387; JACOBI, 463; PURVIS, 861; RAILLIET, 866; SPREHN, 1017; WOLFFHÜGEL, 1208.

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**Antarctic.**—STEINER, 1039, 1040.

## SYSTEMATIC.

### (a) Nematoda.

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*Acrobeloides* gen. n. [or subg. n.] between *Acrobeles* and *Cephalobus*, without type species, COBB J. Parasitol. Urbana 11 1924 p. 108.

*Actinolaimus macrolaimus* de Man, Japan, IMAMURA J. Coll. Agric. Tokyo 11 1931 p. 229 fig. 46; *omer-cooperi* sp. n. Abyssinia, FILIPJEV Proc. Zool. Soc. London 1931 p. 439 fig. 4.

*Acuaria longicaudata* sp. n. under tunica of gizzard of *Corvus* sp., China, HSÜ & HOEPLI Nat. Med. J. China 17 1931 pp. 576-580 figs. 1-5.

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*Alaplectana* gen. n. Oxyuridae, *amhersti* sp. n. in intestine of amherst pheasant, *Crysolophus amherstae*, China (Cairo Zoo), AZIM Ann. Trop. Med. Parasit. Liverpool 25 1931 pp. 373-376 3 figs.

*Amidostomum fuligulae* sp. n. in gizzard of *Fuligula cristata*, *Aythya ferina* and other ducks, India. MAPLESTONE Rec. Ind. Mus. Calcutta 32 1930 pp. 394-397 figs. 15-19; *skrjabini* Boulenger 1926 syn. of *A. chevreuxi* Seurat 1918 in *Anas platyrhynchos*, N. America, WETZEL J. Parasitol. Urbana 17 1931 p. 235.

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*Ascaris joffi* in intestine of *Citellus pygmaeus*, North Caucasia pp. 239-241 figs. 1-6, *tarbagan* in intestine of *Marmota sibirica*, Transbaikalia pp. 241-245 figs. 7-10, spp. n., SCHULZ Zool. Anz. Leipzig 94 1931; *hippopotami* sp. n. in *Hippopotamus amphibius*, Africa (Philadelphia Zoo), CANAVAN Parasitol. Cambridge 23 1931 pp. 211-212 figs. 24-25.

*Aviculariella* gen. n. *Acuariinae*, *alcyona* sp. n. in gizzard of north-western belted kingfisher, *Ceryle alcyon caurina*, Montana, WEHR Proc. U.S. Nat. Mus. Washington 79 v 1931 4 pp. 5 figs.

*Bastiana exilis* Cobb, Japan, IMAMURA J. Coll. Agric. Tokyo 11 1931 p. 199 fig. 3.

*Bathyepsilonema* Steiner 1927, diagnosis pp. 186-191, *amphibolum* p. 191 pl. xxv fig. 1, *rhomaleum* p. 192 pl. xxvi fig. 2 var. *pleocricum* var. n. p. 193, *crenatum* p. 193, pl. xxvii fig. 3, *megaleium* p. 193, *basilicum* p. 194 pl. xxviii fig. 4, *allocotum* p. 195 pl. xxviii fig. 5, *pachysoma* p. 196 pl. xxix, *cosmetum* p. 196 pl. xxx, *adenophorum* p. 197 pl. xxx, *drygalskii* p. 198 pl. ix, *condylocricum* p. 198 pl. xxxi, *vanhoffeni* p. 199 pl. xxxii, *thaurmastum* p. 200 pl. xxxiii, *dicamptum* p. 201 pl. xxxiv, *pachyricum* p. 202 pl. xxxv, *coilocricum* p. 203 pl. xxxv, *cobbi* p. 204 pl. xxxvi, *cricotum* p. 205 text-fig. 17, *brachycephalum* p. 206 text-fig. 18 spp. n. Antarctic, STEINER Deutsche Südpol. Exp. 20 1931.

*Bigalkea* gen. n. *Trichostrongylinae*, *albifrontis* sp. n. in abomasum of *Damaliscus albifrons*, Pretoria Zoo MÖNNIG Rep. Dir. Vet. Serv. Pretoria 17 1931 pp. 236-239 figs. 4-9.

*Bitholinema* gen. n. *schuurmans-stekhoveni* sp. n. Belgium, CONINCK Bull. Mus. R. Hist. Nat. Belg. Brussels 7 xi 1931 pp. 2-5 fig. 1.

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*Capillaria bovis* (Schnyder) in the ox, PETROW & ORLOW Deutsch. Tierärztl. Woch. Hanover 38 1930 pp. 274-277 4 figs.; *perforans* sp. n. in oesophagus of turkey, KOTLÁN & GAOSZ Allatorv. Lapok Budapest 54 1931 pp. 112-114 [n.v.]; *hepatica* (Bancroft), structure and relationships, BAYLIS Parasitol. Cambridge 23 1931 pp. 533-544 2 figs.

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*Chromadola* [sc. *Chromadora*] *fluvialis* Cobb, Japan, IMAMURA J. Coll. Agric. Tokyo 11 1931 p. 213 fig. 24.

*Chromadora dröbachiensis* sp. n. Norway coast, ALLGÉN Zool. Jahrb. Jena (Syst.) 61 1931 pp. 244-245 fig. 10; vide etiam *Chromadola*.

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*Cosmocephalus faridi* sp. n. in gizzard of *Pelecanus onocrotalus*, Egypt, KHALIL Ann. Trop. Med. Parasit. Liverpool 25 1931 pp. 458-460 figs. 3-4.

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*Cramispirura* subg. n. *Oxyspirura*, type *O. popowi* Skrj., to include *O. baskakovi* Skrj., SKRJABIN Zeitschr. Parasitenk. Berlin 3 1931 p. 738.

*Crassicauda crassicauda* (Creplin) in mammary gland of dolphin, *Tursiops tursio*, Gulf of Marseilles, JOYEUX & BAER Bull. Soc. Path. Exot. Paris 24 1931 pp. 198-203 3 figs.

*Criconema komabaensis* sp. n. Japan, IMAMURA J. Coll. Agric. Tokyo 11 1931 p. 218 fig. 3.

*Cryptonchus* vide *Chriptonchus*.

*Cucullanellus* gen. n. *Cucullanidae*, type *Cucullanus minutus* Rud. pp. 130-142 to include *tripapillatus* (Gendré) pp. 143-150, *anceps* (Gendré) pp. 153-157, *abbreviatus* (Rud.) p. 170, *fraseri* (Baylis) p. 171, *adriaticus* pp. 151-152 in *Chrysophrys auratus, elongatus* pp. 158-166, *nanus* in *Morone labrax*, pp. 167-169 figs. spp. n., TÖRNQUIST Göteborgs Vet.-Samh. Handl. (5 B) 2 iii 1931.

*Cucullanidae*, revision, TÖRNQUIST t.c. pp. 1-227, 379-409.

*Cucullanus* Müller, revision of genus, pp. 61-63, *cirratus* Müller pp. 63-73, *heterochrous* Rud. pp. 73-89, *incertus* Gendré pp. 90-96, *micropapillatus* pp. 97-105 fig. 8 pls. i, v, xv, xvi in *Crenilabrus* spp. Mediterranean, *parvus* pp. 106-107 pls. xi, xv in *Serranus* sp. Suez, spp. n. *chrysophrydis* Gendré pp. 107-108 figs., TÖRNQUIST t.c.

*Cyatholaimus micoletzkyi* sp. n. Poland, STEFANSKI C.R. Soc. Sc. Varsovie 7 1914 p. 376; *varicola* de Man, Japan, IMAMURA J. Coll. Agric. Tokyo 11 1931 p. 200 fig. 5.

*Cylindrolaimus obtusus* sp. n. sand-filter beds, Washington, COBB J. Parasit. Urbana 2 1916 p. 200.

*Cyrnea* Seurat 1914 nec Deshayes 1858 renamed *Seurocyrnea*, STRAND Acta Univ. Latviensis 20 1929 p. 4.

*Cystidicola harwoodi* sp. n. in stomach of *Salvelinus fontinalis*, New York, CHANDLER Proc. U.S. Nat. Mus. 78 xxiii 1931 pp. 3-4 fig. 1; *salmonicola* (Ishii) in swim-bladder of salmon, Japan, FUJITA Dobuts. Zasshi Tokyo 43 1931 pp. 276-280 6 figs.; *stigmatura* (Leidy) in swim-bladder of salmonoid fishes, N. America, pp. 372-374 pls xli, xlii, *canadensis* Skinner 1930 syn. of *stigmatura* p. 372, *fischeri* and *harwoodi* transferred to genus *Cystidicoloides* p. 374, SKINKER Trans. Amer. Micr. Soc. Menasha 50 1931.

*Cystidicoloides* gen. n. *Thelaziidae*, type *Cystidicola fischeri* Trav., Art. and Per., 1928, SKINKER t.o. p. 374.

*Dacnitis truttiae* (Fabr.) pp. 195-204. *stelmioides* Vessichelli p. 205-207, *bulbosa* (Lane) p. 208, *laevis* Heitz p. 209, *sphaerocephala* (Rud.) pp. 210-221, *clitellarius* (Ward and Magath) p. 222 pls., figs., TÖRNQVIST Göteborgs Vet.-Samh. Handl. (B 5) 2 iii 1931.

*Dichelyne fossor* Jägersk. pp. 173-188, *cotylophora* (Ward and Magath) pp. 189-191, *mauritanicus* (Gendre) p. 192, *lintoni* (Barreto) p. 193 pls., figs., TÖRNQVIST Göteborgs Vet.-Samh. Handl. (B 5) 2 iii 1931.

*Diphtherophora vanoyei* sp. n. Belgium, CONINCK Bull. Mus. R. Hist. Nat. Belg. Brussels 7 xi 1931 pp. 8-14 figs. 2-5.

*Diplogaster rhodani* sp. n. River Rhône, STEFANSKI Nématodes libres du Léman Geneva 1914 pp. 49-51 pl. ii fig. 16; *roszkowskii* sp. n. Poland, STEFANSKI C.R. Soc. Sc. Varsovie 7 1914 p. 377 fig. 2; *ornatus* sp. n. p. 16 figs. 30-34, *bernensis* Steiner p. 18 fig. 36, STEFANSKI Arch. Biol. Soc. Sc. Varsovie 1 vi 1922; (*Fuchsia*) *pini* sp. n. commensal with *Pissodes pini* L., Ossiacher See, FUCHS Zool. Anz. Leipzig 95 1931 pp. 227-233 9 figs.

*Diplotrriaena bifidus* sp. n. in peritoneal cavity of jays, *Cyanocorax cyanopogon*, and *C. chrysops*, S. America, in Philadelphia Zoo, CANAVAN Parasitol. Cambridge 23 1931 pp. 224-226 figs. 14-19; *manipoli* sp. n. in body cavity of *Garrulus branchis*, China, CHU J. Parasitol. Urbana 17 1931 pp. 158-159 figs. 20-22.

*Dispharynx smitiana* sp. nom. n. pro *Dispharagus* sp. Smith and Noto-soediro 1926, STRAND Acta Univ. Latv. Riga

20 1929 p. 4 [previously named *D. notoi*, SMIT Ned. Ind. Blad. Diergeneesk. 39 1927 p. 151.]

*Dorylaimus carteri* Bast. var. *spissus* var. n. p. 283, *roboroides* sp. n. p. 284, Sweden, JÄGERSKILD in EKMAN Intern. Rev. Hydrobiol. Leipzig 7 1915; *bastiani*, excretory system, STEFANSKI Arch. Biol. Soc. Sc. Varsovie 1 vi 1922 p. 22 figs. 40-41; *tenuissimus* sp. n. p. 19 fig. 4, *filiformis* var. *salinae* var. n. p. 17, Poland, STEFANSKI C.R. Stat. Hydrobiol. Wigry 1 iv 1925; *stagnalis* Duj. p. 636, *carteri* var. *brevicaudatus* f. *typica* Mich. p. 637 Siberia, ALLGÉN Arch. Hydrobiol. Stuttgart 22 1931; *briggdammensis* de Man p. 221 fig. 35, *carteri* Bastian p. 222 fig. 36, *elegans* var. *longicaudatus* var. n. p. 222 fig. 37, *filiformis* var. *papillatus* var. n. p. 223 fig. 38, var. *protumidus* var. n. p. 224 fig. 39, *limnophilus* de Man p. 224 fig. 40, *micoletzkyi* p. 225 fig. 41, *stagnalis* Duj. p. 226 fig. 42, *crassus* de Man p. 226 fig. 43, *tambo* p. 227 fig. 44, *denticaudatus* p. 228 fig. 45, spp. n., Japan, IMAMURA J. Coll. Agric. Tokyo 11 1931.

*Dracunculus medinensis* L. in man, Dutch East Indies, BRUG Meded. Dienst. Volksgesondheid Ned. Indie 19 1930 pp. 153-157 3 pls.

*Dujardinia australiensis* sp. n. in stomach of *Crocodilus johnstoni*, Queensland, BAYLIS Ann. Mag. Nat. Hist. London (10) 8 1931 pp. 99-101 figs. 4-5.

*Elaphostrongylus* gen. n. *Metastrongylidae*, *cervi* sp. n. in intermuscular connective tissue of *Cervus elaphus*, CAMERON J. Helminth. London 9 1931 pp. 213-214 figs. 1-3.

*Enoplolaimus diplechma* (Southern), Norway coast, ALLGÉN Zool. Jahrb. Jena (Syst.) 61 1931 pp. 221-222 fig. 4.

*Enterobius lagothericis* pp. 134-137 figs. 1-7, *duplacidens* pp. 137-139 figs. 8-14, spp. n. in Humboldt's woolly monkey, *Lagothrix humboldtii*, Zool. Gardens, London, BUCKLEY J. Helminth. London 9 1931.

*Epomidiostomum*, notes on anatomy of genus, MAPLESTONE Rec. Ind. Mus. Calcutta 32 1930 pp. 397-399 figs. 20-22; *uncinatum* (Lundahl) in various birds pp. 2-4, *crami* sp. n. in subcuticula of gizzard of *Branta canadensis* and *Chen caerulescens* pp. 4-8 pls. i, ii, North America, WETZEL Proc. U.S. Nat. Mus. 78 1931 xxi.

*Epsilonella* gen. n. *Epsilonematidae*, *gracilis* sp. n., German Southpolar Exped., STEINER Deutsche Südpol. Exp. 20 1931 pp. 207-208 pl. xxxvi fig. 17.

*Epsilonema colobathrophorum* p. 381 pl. liii, *cyclophorum* p. 381 fig. 66, *oligechon* p. 382 fig. 67, *ateles* p. 383 fig. 68, *poicilothrix* p. 384 fig. 69, with var. n. *strongylosum* p. 385 fig. 70 and *macrum* p. 386 fig. 71, *dictyotocricum* p. 388 fig. 72, *metschnikoffi* p. 389 fig. 73, *rhogmacricum* p. 390 fig. 74, *primitivum* p. 391 fig. 75, *oligoschistum* p. 392 fig. 76, *dichotomum* p. 393 fig. 77, *homalocricum* p. 394 pl. liii, *trachelogaster* p. 395 fig. 78, *allohystera* p. 396 fig. 79, *simolomum* p. 398 fig. 80, *polymericum* p. 398 fig. 81, *brachyraspedotum* p. 399 fig. 82, *homoiocricum* p. 400 fig. 83, *rhabdotum* p. 401 pl. liv, *cyrtum* p. 402 pl. lv, *dicrocricum* p. 403 fig. 84, *leptothorax* p. 403 fig. 85, *antarcticum* p. 404 fig. 86, *desmocricum* p. 405 fig. 87, *leptomeres* p. 407 fig. 88, *ilysparticum* p. 408 fig. 89, *camplocricum* p. 409 fig. 90, *trachelotum* p. 411 fig. 91, *aphanum* p. 413 fig. 92, *philopsychrum* p. 414 fig. 93, *mixtum* p. 415 fig. 94, *thyridocricum* p. 416 fig. 95, *campum* p. 417 pl. liv, *corynodes* p. 418 fig. 96, *herpetum* p. 419 fig. 97, *nannum* p. 420 fig. 98, *tricolom* p. 421 fig. 99, *sphalerum* p. 422 fig. 100, *leptotrichum* p. 423 fig. 101, *pneumaticum* p. 424 pl. lvi, *hezastoichum* p. 425 fig. 102, *symbioticum* p. 426 pl. lvii, *heterocricum* p. 427 fig. 103, *semeionoides* p. 428 fig. 104, *eucraspedotum* p. 429 fig. 105, *frigidum* p. 430 fig. 106, *thinophilum* p. 431 fig. 107, *sigmatoides* p. 432 fig. 108 spp. n. Antarctic, STEINER Deutsche Südpol. Exp. 20 1931.

*Epsilonematidae* Steiner 1927, diagnosis and systematic position, STEINER op. cit. pp. 170-186 fig. 1-15.

*Epsilononides* gen. n. *Epsilonematidae*, *hormiscophorum* p. 357 pl. li, *mirabile* p. 358 pl. lii, *marmarotum* p. 359 pl. lii, *gephyrocricum* p. 360 fig. 54, *phlyctainocricum* p. 361 fig. 55, *polyacanthum* p. 362 fig. 56, *eurycricum* p. 363 fig. 57, *spongocricum* p. 364 fig. 58, *cosmetum* p. 365 fig. 59, *cordylophorum* p. 366 fig. 60, *litum* p. 368 fig. 61, *leiocephalum* p. 369 fig. 62, *pectum* p. 370, *acanthophorum* p. 371 fig. 63, *syringocricum* p. 372 fig. 64, *leptocephalum* p. 373 fig. 65, spp. n., STEINER op. cit.

*Eurymermis* gen. n. *Mermithidae*, *chrysopodis* sp. n. in larva of *Chrysops coecutiens*, Greifswald, MÜLLER Z. Morph. Ökol. Tiere Berlin 24 1931 pp. 90-91 fig. 1.

*Eustrongylides excisus* Jägersk., larvae in freshwater fishes, Roumania, CIUREA Rev. Stiint. Vet. Bucarest 11 1930 p. 12 figs. 33-37, 43, 44; *tricolor* sp. n. in proventriculus of domestic duck, Formosa, SUGIMOTO J. Jap. Soc. Vet. Sc. Tokyo 1931 p. 66.

*Eustrongylididae* fam. nom. n. [= *Eustrongylidae* Leiper 1908, emend.], LEIPER J. London Sch. Trop. Med. 1 1911 p. 117.

*Falcaustra araxiana* pp. 58-59 figs. 1-2, *armenica* pp. 59-62 fig. 3 spp. n. in intestine of *Emys orbicularis*, MASSINO Oeuvres Inst. Trop. Armenia Erivan 1 1924.

*Filaria mavis* sp. n. in metatarsal bursa of thrush, *Turdus musicus*, Scotland, LEIPER Zoologist London 13 1909 pp. 337-339; *Smithii* (Cobbold) in Indian elephant, MITTER J. Comp. Path. Ther. Edinburgh 25 1912 p. 113 figs. e-g; "*Filaria*" *sanguinea* Rud. in dorsal and tail fin of the crucian carp, NYBELIN Zbl. Bakt. Jena (i) 121 1931 pp. 58-64 figs. 2-4.

*Filariopsidae* fam. n. *Filarioidea*, type *Filariopsis* van Thiel, 1926, to include, possibly, *Oslerus* Hall, 1921, CHANDLER Proc. U.S. Nat. Mus. 78 xxiii 1931 pp. 8-9.

*Filariopsis arator* sp. n. in lungs of *Cebus* sp., Chicago (from South America) CHANDLER Proc. U.S. Nat. Mus. 78 xxiii 1931 pp. 6-8 figs. 8-10.

*Filaroides bronchialis* (Gmel.) in bronchial cysts in *Putorius putorius*, BAER Rev. suisse Zool. Genève 38 1931 pp. 319-323 figs. 5-10.

*Gnathostoma spinigerum* Owen in oesophagus of weasel, Japan, YOSHIDA Dobuts. Zasshi Tokyo 43 1931 pp. 266-275 1 pl.; *turgidum* (Stoss.) from stomach of opossum, *Didelphys virginiana*, Louisiana, DIKMANS Proc. U.S. Nat. Mus. 79 xxxi 1931 pp. 2-3.

*Goezia gaviatidis* sp. n. in stomach of gharial, *Gavialis gangeticus*, MAPLESTONE Rec. Ind. Mus. Calcutta 32 1930 pp. 391-394 figs. 12-14.



*Gongylonema notosoedironis* sp. nom. n. pro *G. ingluvicola* Smit and Noto. 1926 nec Ransom, STRAND Act. Univ. Latv. Riga 20 1929 p. 5 [previously re-named *G. crami*, SMIT Ned. Ind. Blad. Diergeneesk. 39 1927 p. 150]; *macrogubernaculum* sp. n. in lungs of *Macacus rhesus*, in oesophagus of *Cebus hypoleucus* and in bronchi and stomach of *Cercopithecus tamapoin*, Zoopark, Moscow, LUBIMOV Parasitol. Cambridge 23 1931 pp. 446-448 3 figs.; *neoplasticum* (Fib. and Diti.) beneath gastric mucosa of *Mus norvegicus*, Philippine Is., TUBANGUI Philipp. J. Sc. Manila 46 1931 pp. 575-579 figs. 16-17.

*Grammophora* Gedoelst 1916 re-named *Onchocercella*, YORKE & MAPLESTONE Ann. Trop. Med. Parasit. Liverpool. 25 1931 p. 551.

*Habronema grimaldiae* Seurat p. 47, *chevreuxi* Seurat p. 48 in tumours in the stomach wall of *Felis pardus antiquorum* and other carnivores, Algeria, SEURAT Bull. Soc. Hist. Nat. Afrique Nord Algiers 10 1919; *euplocami* in gizzard of pheasant, *Euplocamus leucmelanus*, pp. 406-407 figs. 32-34, *imbricata* in *Scops pennatus* pp. 408-411 figs. 35-38 spp. n. India, MAPLESTONE Rec. Ind. Mus. Calcutta 32 1930; *urophasiana* sp. n. in gizzard of sage grouse, *Centrocercus urophasianus*, U.S.A., WEHR Proc. U.S. Nat. Mus. Washington 79 iii 1931 pp. 1-3 figs. 1-3; *whitei* sp. n. in stomach of *Suricata suricatta*, Orange Free State, MÖNNIG Rep. Dir. Vet. Serv. Pretoria 17 1931 pp. 277-278 figs. 1-5; *hamospiculatum* (Nev.-Lem.) in *Manis tricuspis*, Fernando Po, BAYLIS Ann. Mag. Nat. Hist. London (10) 8 1931 pp. 191-194 2 figs.

*Haemonchus bedfordi* Le Roux in *Cobus ellipsiprymnus*, Transvaal, MÖNNIG Rep. Dir. Vet. Serv. Pretoria 17 1931 pp. 241-242 fig. 13.

*Haemostrongylus subcrenatus* Raill. and Henry 1913, type of *Bronchostrongylus* gen. n., CAMERON J. Helminth. London 9 1931 pp. 150-151.

*Halalaimus tröbachiensis* sp. n. Norway Coast, ALLGÉN Zool. Jahrb. Jena (Syst.) 61 1931 pp. 219-220 fig. 3.

*Haplonema hamulatum* sp. n. in stomach of *Lota maculosa*, Canada, MOULTON J. Parasit. Urbana 18 1931 pp. 105-107 pl. ix.

*Hartertia zakharowi* sp. n. in intestine of *Lanius minor*, Sea of Asow, SKRJABIN Isvestia Don. Vet. Inst. Novotscherkask 2 ii 1920 4 pp.; *zuluensis* pp. 273-274 figs. 1-2, *natalensis* pp. 274-275 figs. 3-4 spp. n. in a bustard, Zululand, MÖNNIG Rep. Dir. Vet. Serv. Pretoria 17 1931.

*Hedruris spinigera* sp. n. in stomach of *Salmo trutta* and "mullet," New Zealand, BAYLIS Ann. Mag. Nat. Hist. London (10) 7 1931 pp. 105-113 4 figs.

*Hepaticola* Hall syn. of *Capillaria* Zeder, BAYLIS Parasitol. Cambridge 23 1931 p. 541; *Hepaticola* sp. in *Cavia pamparum*, Argentina, MACDONAGH La Semana Méd. Buenos Aires 36 1929 pp. 1588-1590 4 figs.; *anthropopithecii* sp. n. in chimpanzee and, experimentally, in rat, guinea-pig, rabbit and prairie dog, TROISIER and DESCHIENS Ann. Méd. Paris 27 1930 pp. 414-425 2 figs.; *hepatica* (Bancroft) in liver of *Mus norvegicus*, Philippine Is., TUBANGUI Philipp. J. Sc. Manila 46 1931 pp. 564-567 fig. 11.

*Herpetostromylus* gen. n. *Trichostrongylinae* p. 506, *pythonis* in intestine of carpet snake, *Python spilotes*, pp. 501-504 figs. 1-3, *varani* in intestine of Gould's monitor, *Varanus gouldi*, pp. 504-506 figs. 4-6 spp. n. Queensland, BAYLIS Ann. Mag. Nat. Hist. London (10) 7 1931.

*Heterakis hyperborea* sp. n. in small intestine of lesser snow goose, *Oen hyperborea hyperborea*, SWINYARD Trans. Amer. Micr. Soc. Menasha 50 1931 pp. 366-369 pl. xl; *spumosa* Schneider in *Mus norvegicus*, Philippine Is., TUBANGUI Philipp. J. Sc. Manila 46 1931 pp. 571-573 fig. 14.

*Heterodera* sp. n. in wheat, Saskatchewan, Canada, THORNE J. Parasit. Urbana 15 1928 p. 71; *radicicola* (Greeff), structure and life-history, NAGAKURA Japan. J. Zool. Tokyo 3 1930 pp. 95-146 85 figs.

*Hoepplius* gen. n. *Oxyurinae*, *spinosus* p. 155 figs. 1-9, *bohli* p. 156 figs. 10-13 in large intestine and caecum of *Cynocephalus volans*, spp. n., Philippine Islands, CHU J. Parasitol. Urbana 17 1931.

*Hydromermis acrostoma*, *rawsoni* spp. n. (sine descr.) Lake Simcoe, Canada, STEINER in RAWSON Univ. Toronto Stud. Biol. 34 1930 p. 33.

*Hypodontolaimus zosteræ* Allg., Norway coast, ALLGÉN Zool. Jahrb. Jena (Syst.) 61 1931 pp. 240–241 fig. 9.

*Icosiella neglecta* (Diesing) in subcutaneous and intermuscular connective tissue of *Rana ridibunda*, Caucasus, DINNIK Trav. Stat. Biol. Caucasus Nord 3 1930 pp. 88–89 pl. ii figs. 2–4.

*Impalaia nudicollis* sp. n. in intestine of blesbuck, *Damaliscus albifrons*, Pretoria Zoo, MÖNNIG Rep. Dir. Vet. Serv. Pretoria 17 1931 pp. 234–236, 239–241, figs. 1–3, 10–12.

*Ironus ignavus* Bast., Lake Geneva, STEFANSKI Nématodes libres du Léman 1914 pp. 47–49 pl. ii fig. 11; Japan, IMAMURA J. Coll. Agric. Tokyo 11 1931 p. 211 fig. 21; subsp. *vergicaudus* subsp. n. Sweden, JÄGERSKIÖLD in EKMAN Intern. Rev. Hydrobiol. Leipzig 7 1915 p. 283; var. *brevicaudatus* Brakenhoff, Siberia, ALLGÉN Arch. Hydrobiol. Stuttgart 22 1931 p. 637; *truncatus* sp. n. Poland, STEFANSKI Bull. Acad. Sc. Cracovie B 1916 p. 174 fig. 2.

*Isonchus* Cobb syn. of *Aphelenchus* Bastian, STEINER J. Wash. Acad. Sc. 21 1931 p. 469.

*Kalicephalus radicus* sp. n. in intestine and rectum of king cobra, India, BHALERAO Ann. Mag. Nat. Hist. London (10) 8 1931 pp. 102–106 figs. 1–3.

*Katanga* Y. and M. 1926, renamed *Onchocercella*, YORKE & MAPLESTONE Ann. Trop. Med. Parasit. Liverpool 25 1931 p. 551.

*Kittia* gen. n. *Filariidae*, *myocastoris* sp. n. [sine descr.] in *Nutria*, SEDLMEIER Münchener Tierärztl. Woch. 82 1931 p. 83.

*Krampia acropora* Dittl., Norway coast, ALLGÉN Zool. Jahrb. Jena (Syst.) 61 1931 pp. 226–228 fig. 5.

*Litomosoides* gen. n. *Filariinae*, *sigmodontis* sp. n. in thoracic cavity of *Sigmodon hispidus* and white rat, Texas, CHANDLER Proc. U.S. Nat. Mus. 78 23 1931 pp. 4–6 figs. 4–7.

*Longistriata leporis* sp. n. in *Lepus timidus gischiganus*, Sakhalin Is., SCHULZ Parasitic worms of rabbits and hares 1931 pp. 95–98 figs. 50–55.

*Longistrongylus* gen. n. *Trichostrongylinae*, *meyeri* sp. n. in red hartebeest, *Bubalis caama*, S.W. Africa, LE ROUX J. Helminth. London 9 1931 pp. 141–146 5 figs.

*Megalomermis* gen. n. *melolonthæ* sp. n. from *Melolontha*, MÜLLER Z. Morph. Ökol. Tiere Berlin 24 1931 pp. 91–92.

*Mermis* sp. in *Delphacodes furcifera* ESAKI & HASHIMOTO Kyushu Imp. Univ. Dept. Agric. Entom. Lab. Publ. 2 1931 pp. 54–55 fig. 10 pl. v; *lituipenis* sp. n. Sweden, JÄGERSKIÖLD in EKMAN Intern. Rev. Hydrobiol. Leipzig 7 1915 p. 285.

*Metabronema canadense* sp. n. in *Salvelinus fontinalis*, Canada, SKINKER Proc. U.S. Nat. Mus. 79 xxiv 1931 pp. 1–3 figs. 1–6.

*Metalinhomoeus longicaudatus* sp. n. Norway coast, ALLGÉN Zool. Jahrb. Jena (Syst.) 61 1931 pp. 252–253 fig. 13.

*Metathelazia* gen. n. *Thelaziidae*, *californica* sp. n. in lungs of *Lynx rufus californicus* and *Felis hipolestes*, U.S.A., SKINKER Proc. U.S. Nat. Mus. 79 xxiv 1931 pp. 7–8 figs. 12–19.

*Microfilaria* sp. (? *Dirofilaria scapiceps*) in blood of *Lepus washingtonii*, N. America, SCHWARTZ & ALICATA J. Wash. Acad. Sc. 21 1931 pp. 298–301 1 fig.; *actoni* sp. n. in blood of man, India, RAO Ind. J. Med. Res. 18 1931 pp. 979–981 pl. lii; *kitti* sp. n., larva of *Kittia myocastoris*, in beaver, SEDLMEIER Münchener Tierärztl. Woch. 82 1931 p. 83.

*Micropleura vivipara* Linstow in *Gavialis gangeticus*, India, MAPLESTONE Rec. Ind. Mus. Calcutta 32 1930 pp. 385–386 fig. 1.

*Molineus torulosus* (Molin) in intestine of *Cebus capucinus*, Zool. Gard., Warsaw, STEFANSKI Wiadom. Weterynar. Warsaw 9 1930 no. 122 pp. 1–5 4 figs.

*Monhystera filamentosa* Dittl. pp. 247–249 fig. 11, *dröbachiensis* sp. n. pp. 249–250 fig. 12 Norway coast, ALLGÉN Zool. Jahrb. Jena (Syst.) 61 1931; *parvella* sp. n. Abyssinia, FILIPJEV Proc. Zool. Soc. London 1931 p. 440 fig. 5; *filiiformis* Bastian p. 201 fig. 6, *paludicola* de Man p. 201 fig. 7, *agilis* de Man p. 202 fig. 8, Japan, IMAMURA J. Coll. Agric. Tokyo 11 1931 [vide etiam *Mono-hystera*].

*Monohystera crassa* Bütschli, Lake Geneva, STEFANSKI Nématodes libres du Léman Geneva 1914 pp. 18-19 pl. i fig. 3; *demani* p. 654, *oxyurioides* p. 655 fig. 8 spp. n. Zuidersee, STEKHOVEN Z. Morph. Ökol. Tiere Berlin 20 1931.

*Mononchus polonicus* sp. n. Poland, STEFANSKI C.R. Soc. Sc. Varsovie 7 1914 pp. 378-379 fig. 3; *tenuicaudatus* sp. n. p. 52 pl. ii fig. 17, *tridentatus* de Man p. 53 pl. ii fig. 18 Switzerland, STEFANSKI Nématodes libres du Léman 1914; *macrostoma* Bastian p. 212 fig. 22, *tunbridgensis* Bastian p. 212 fig. 23, Japan, IMAMURA J. Coll. Agric. Tokyo 11 1931; *brachylaimus* Cobb, Siberia, ALLGÉN Arch. Hydrobiol. Stuttgart 22 1931 p. 638.

*Myosyringata* subord. n., WARD J. Parasit. Urbana 4 1917 p. 9.

*Necator argentinus* sp. n. in man, Argentine and Brazil, PARODI Semana Méd. Buenos Aires 1920 no. 6 [n.v.], syn. of *N. americanus* Stiles, LANGERON Bull. Soc. Path. Exot. Paris 13 1920 p. 539; *suillus* sp. n. in domestic pig, Trinidad, ACKERT & PAYNE Amer. J. Hyg. Baltimore 2 1922 p. 47, J. Amer. Vet. Med. Ass. 61 1922 pp. 186-188.

*Nematodirus aspinosus* sp. n. in intestine of *Lepus timidus*, Siberia, SCHULZ Arbeit. 50-sten Helminth. Exp. U.S.S.R. nach Siberien 1929 [n.v.], RAJEWSKAJA Zeitschr. Infektionskr. Haustiere Berlin 40 1931 pp. 118-119 pl. v figs. 10-14, *mugosaricus* Schulz in *Citellus mugosaricus* RAJEWSKAJA t.c. pp. 124-125 pl. ix figs. 39-42; *oiraticus* sp. n. in *Cervus canadensis asiaticus* and *Ovis aries*, Siberia, RAJEWSKAJA Arbeit 50-sten Helminth. Exp. Siberien [n.v.], Zeitschr. Infektionskr. Haustiere Berlin 40 pp. 126-127 pl. ix figs. 47-51, *skrjabini* sp. n. in intestine of *Rangifer tarandus*, Russia, MIZKEWITSCH Trud. Gos. Inst. Exp. Vet. Med. Moscow 1929 [n.v.], RAJEWSKAJA t.c. pp. 128-129 pl. x figs. 52-55; *mugosaricus* [sc. *mugosaricus*] Schulz 1926 in *Citellus mugosaricus*, Russia, SCHULZ Rev. Microbiol. Epid. Saratov 10 1931 pp. 115-118 3 figs.

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*Neotylenchus* gen. n. Tylenchidae, *abulbosus* sp. n. in strawberry plants

and carrots, Europe and N. America, STEINER J. Wash. Acad. Sci. 21 1931 pp. 536-538 fig. 1.

*Nicollina sarcophili* sp. n. in intestine of Tasmanian devil, *Sarcophilus harrisii*, Scottish Zool. Park, CAMERON J. Helminth. London 9 1931 pp. 153-156 3 figs.

*Nippostrongylus muris* (Yokogawa) in intestine of *Mus norvegicus*, Philippine Is., TUBANGUI Philipp. J. Sc. Manila 46 1931 pp. 567-569 fig. 12.

*Non-Bursata* [? subord. n.] comprising *Ascaridae*, *Oxyuridae*, *Filariidae* and *Spiruridae*, LEIPER J. London Sch. Trop. Med. 1 1911 p. 22.

*Numidica suricattae* sp. n. in intestine of *Suricata suricatta*, S. Africa, MÖNNIG Rep. Dir. Vet. Serv. Pretoria 17 1931 pp. 279-280 figs. 6-8.

*Nygolaimus kaburakii* sp. n. Japan, IMAMURA J. Coll. Agric. Tokyo 11 1931 p. 230 fig. 47.

*Obeliscoides leporis* sp. n. in *Lepus timidus*, Sakhalin Is., SCHULZ Parasites of rabbits and hares, 1931 pp. 85-88 figs. 45-49.

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*Onchocercinae* subf. n. *Filariidae*, LEIPER J. London Sch. Trop. Med. 1 1911 p. 23.

*Oncholaimus longidentatus* sp. n. Zuidersee, STEKHOVEN & ADAM in STEKHOVEN Z. Morph. Ökol. Tiere Berlin 20 1931 pp. 639-641 fig. 2; *rugosus* sp. n. Zuidersee, STEKHOVEN t.c. pp. 641-643 fig. 3; *punctatus* Cobb, Japan, IMAMURA J. Coll. Agric. Tokyo 11 1931 p. 213.

*Ophidascaris excavata* sp. n. in stomach of snake, *Ancistrodon halys brevicaudus*, pp. 583-586 pls. ii, v, *filaria* (Duj.) pp. 586-587 pl. iv in *Python molurus* China, HST & HOEPLI Nat. Med. J. China 17 1931.

*Ostlerius* [sc. *Ostlerus*] sp. inq. in bronchi of *Felis tigris*, CAMERON J. Helminth. London 9 1931 pp. 151-152 fig. 1.

*Ostertagia odocoilei* p. 1 pl. i, *mossi* p. 2 pl. ii spp. n. in abomasum of Virginia deer, *Odocoileus virginianus*, Pennsylvania, *lyrata* Sjöberg in cattle pp. 2-3 fig. 1, with synopsis of genus pp. 3-5, DIKMANS Proc. U.S. Nat. Mus. Washington 79 vi 1931; *cervi* sp. n. in abomasum and duodenum of *Cervus elaphus*, CAMERON J. Helminth. London 9 1931 pp. 214-216 figs. 4-6.

*Oxysoma macintoshii* Stewart transferred to *Aplectana*, TRAVASSOS Mem. Inst. Oswaldo Cruz Rio de Jan. 25 1931 pp. 265-266 pl. li.

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*Oxyspirura* subg. n. *Oxyspirura*, type *O. cephaloptera* Molin, SKRJABIN Zeitschr. Parasitenk. Berlin 3 1931 p. 738, *schulzi*, *petrowi* in *Lanius minor*, *Enneoctonus collurio* and *Otomela phoenicuroides*, *popowi* in *Monticola cyanus*, *baskakowi* in *Muscicapa grisola*, *podjapolskoi* in *Totanus glareola* spp. n., *sgymoidea* Molin in *Corvus frugilegus*, *Corvus corone*, *Pica pica* and *Garrulus brandti*, Russia, with subgenera *Oxyspirura*, *Yorkeispirura* and *Crami-*

*spirura*, SKRJABIN Leistungen der 50 Helminth. Exped. Moscow 1929 pp. 213-234 [n.v.], Zeitschr. Parasitenk. Berlin 3 1931 pp. 726-740 16 figs.

*Oxyuris tha* sp. n. in tadpoles of *Rana macrocnemis*, *R. ridibunda*, *Hyla arborea* and *Bufo viridis*, Caucasus, DINNIK Trav. Stat. Biol. Caucase Nord 3 1930 pp. 87-88 pl. ii fig. 1; *dubia* Leidy p. 263, *preputialis* Skrj. p. 266 pl. lii, transferred to *Aplectana*, TRAVASSOS Mem. Inst. Oswaldo Cruz Rio de Jan. 25 1931.

*Paracamallanus cyathopharynx* (Baylis), TÖRNQUIST Göteborgs Vet.-Samh. Handl. (5 B) 2 iii 1931 pp. 373-376 pl. xiv fig. 3.

*Paracanthochus macrodon* Ditl. p. 234, *spectabilis* sp. n. pp. 235-236 fig. 7 Norway Coast, ALLGÉN Zool. Jahrb. Jena (Syst.) 61 1931.

*Paramermis contorta* (Linst.) with notes on genus, VON LINSTOW Zool. Anz. Leipzig 29 1905 pp. 393-396 1 fig.; *falcipenis*, *brevipenis*, *rugipenis*, p. 284 *leptipenis*, *clavipenis* p. 285 spp. n. Sweden, JÄGERSKIÖLD in EKMAN Intern. Rev. Hydrobiol. Leipzig 7 1915; *canadensis* sp. n. in mosquito, *Aedes vexans*, British Columbia, STEINER Canadian Entom. Orillia 56 1924 pp. 161-164 7 figs.

*Parasitaphelenchus* Fuchs syn. of *Pathoaphelenchus* Cobb, STEINER J. Wash. Acad. Sc. 21 1931 p. 469.

*Paraspidodera americana* in caecum of *Ctenomys magellanicus* pp. 142-144 4 figs., *uruguayana* in caecum of *Cavia aperca* pp. 145-147 2 figs., spp. n. Uruguay, KHALIL & VOGELSANG Z. Parasitenk. Berlin 3 1931.

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*Phanoderma gracile* De Man Norway coast, ALLGÉN Zool. Jahrb. Jena (Syst.) 61 1931 pp. 216-217 fig. 2.

*Pharyngostromylus brevis* sp. n. in stomach of Bernard's kangaroo, *Macropus bernardi*, Australia (in Philadelphia Zoo), CANAVAN Parasitol. Cambridge 23 1931 pp. 199-201 pl. viii figs. 1-5.

*Phascolostrongylus* gen. n. *Trichoneminae*, *turleyi* sp. n. in colon of wombat, *Phascalomys mitchelli*, Australia (in Philadelphia Zoo), CANAVAN t.c. pp. 201-202 pl. viii figs. 8-13.

*Philometra opercularis* sp. n. in thorax of *Abramis farenus*, and in subcutaneous tissue of gill opercula of *Abramis blicca*, Mälarsee, with notes on genus, NYBELIN Zbl. Bakt. Jena (i) 121 1931 p. 59 fig. 1.

*Physaloptera reevesi* sp. n. in stomach of *Accipiter nisus*, China, CHU J. Parasitol. Urbana 17 1931 pp. 157-158 figs. 14-17, 23; *varani* Parona in stomach of snake, *Zaocys dhumnades*, China, HSÜ & HOEPLI Nat. Med. J. China 17 1931 pp. 574-576 pls. ii, iii, v.

*Plectus tenuis* Bastian, Switzerland and Poland, STEFANSKI Arch. Biol. Soc. Sc. Varsovie 1 vi 1922 p. 19 figs. 37-38; *cirratus* Bastian p. 207 fig. 16, *multitubiferus* sp. n. pp. 207-208 fig. 17 Japan, IMAMURA J. Coll. Agric. Tokyo 11 1931.

*Polycacum* gen. n. *Ascaridae*, *gangeticum* sp. n. in intestine of gharial, *Gavialis gangeticus*, India, MAPLESTONE Rec. Ind. Mus. Calcutta 32 1930 pp. 388-391 figs. 8-11.

*Porrocaecum scoliodontis* sp. n. in stomach and intestine of a dog-shark (*Scoliodon* sp.) pp. 95-98 figs. 1-3, *crocodili* Taylor in *Crocodilus johnstoni* and *Varanus gouldii* p. 99 Queensland, BAYLIS Ann. Mag. Nat. Hist. London (10) 8 1931.

*Poteriostomum ratzi* Kotl. in horse, STEFANSKI Wiadom. Weterin. Warsaw 9 1930 no. 114 pp. 3-4 fig. 1.

*Prismatolaimus dadayi* sp. n. Poland, STEFANSKI C.R. Stat. Hydrobiol. Wigny 1 iv 1925 p. 13 fig. 2; *dolichulus* de Man, Japan, IMAMURA J. Coll. Agric. Tokyo 11 1931 p. 203 fig. 9.

*Probstmayria vivipara* (Probstm.), re-description, TRAVASSOS Mem. Inst. Oswaldo Cruz Rio de Jan. 25 1931 pp. 286-289 pl. lxxiv.

*Procamallanus* Baylis p. 295, *laevi-conchus* (Wedl) pp. 296-305, *spiralis* Baylis pp. 312-320, *parasiluri* Fujita, *iheringi* Trav., *inopinatus* Trav., *rarus* Trav., *zenopodis* Baylis p. 321, *sphaericonchus* sp. n., pp. 306-311 pls. figs., TÖRNQUIST Göteborgs Vet.-Samh. Handl. (5 B) 2 iii 1931.

*Prochaetosoma* Baylis and Daub. p. 311, *oligistocricum* p. 316 fig. 20, *placipherum* p. 317 fig. 21, *eumecum* p. 318 pl. xlviii, *atechnum* fig. 22, var. *heterocricum* var. n. p. 319, *lophocricum* var. n. p. 319, *monadicum* p. 320 fig. 23, var. *conocephalum* var. n. p. 322 fig. 24, *sphenostegum* p. 322 fig. 25, *geometroides* p. 323 fig. 26, *oligostegum* p. 323 fig. 27, *striatum* p. 325 fig. 28, *cosmetocricum* p. 326 fig. 29, *docidocricum* p. 327 fig. 30, *hygrum* p. 328 fig. 31, *stenocricum* p. 329 fig. 32, *eucalobates* p. 330 fig. 33, *polychistum* p. 331 fig. 34, *characterocricum* p. 332 fig. 35, *tegocricum* p. 333 fig. 36, *holocricum* p. 334 pl. xlix, *sterrurum* p. 335 fig. 37, *dynatocricum* p. 335 fig. 38, *apionipherum* p. 337 fig. 39, *leptotrachelum* p. 339 fig. 40, *eustegum* p. 339 fig. 41, *stolidotum* p. 340 fig. 42, *microctenium* p. 341 fig. 43, *glottocricum* p. 343 fig. 44 pl. l, *tenuis* p. 345 fig. 45, *aschistocricum* p. 346 fig. 46, *labidurum* p. 347 fig. 47, *pachymeres* p. 348 fig. 48, *penionoides* p. 350 fig. 49, *glaphyrum* p. 351 fig. 50, *hadroctenium* p. 352 fig. 51, with varr. n. *asymmetricum*, *epsilonoides* p. 354 figs. 52-53 spp. n., STEINER Deutsche Südpol. Exp. 20 1931.

*Procriconema straeleni* sp. n. Belgium, CONINCK Bull. Mus. R. Hist. Nat. Belg. Brussels 7 xi 1931 pp. 5-8.

*Protopirura hamospiculata* Nev.-Lem. referred to *Habronema*, BAYLIS Ann. Mag. Nat. Hist. London (10) 8 1931 pp. 191-194 2 figs.; *bonnei* Ortlepp in *Epimys norvegicus*, Venezuela, BRUMPT Ann. Parasitol. Paris 9 1931 pp. 345-357 9 figs. pl. viii; *muricola* Geddoelst in *Mus norvegicus*, Philippine Is., TUBANGUI Philipp. J. Sci. Manila 46 1931 pp. 573-575 fig. 15.

*Protostrongylus stilesi* in lungs of *Ovis canadensis* pp. 1-2 pl. i, *macrotis* in bronchi of mule deer, *Odocoileus hemionus* p. 3 pl. ii, N. America, DICKMANS Proc. U.S. Nat. Mus. Washington 79 xviii 1931.

*Pseudamidostomum boulengeri* sp. n. in *Nettopus coromandelianus*, *Bubulcus coromandus* and a duck, India, MAPLESTONE Rec. Ind. Mus. Calcutta 32 1930 pp. 399-403 figs. 23-28.

*Pseudoaulolaimus* gen. n. *anchilodcaudatus* sp. n. Japan, IMAMURA J. Coll. Agric. Tokyo 11 1931 pp. 210-211 fig. 20.



*Pseudo-Bursata* [? subord. n.] to contain *Eustrongylidae*, LEIPER J. London Sch. Trop. Med. 1 1911 p. 24; renamed *Pseudostrongyles* LEIPER t.c. p. 117.

*Pseudostrongyles* nom. n. for division of *Nematoda Bursata*, LEIPER J. London Sch. Trop. Med. 1 1911 p. 117 [= *Pseudo-Bursata* Leiper 1911, renamed].

*Raillietnema* Trav., revision, TRAVASSOS Mem. Inst. Oswaldo Cruz Rio de Jan. 25 1931 pp. 282-284 pls. lxvi-lxx.

*Rhabdias* gen. nom. n. pro *Rhabdonema* Leuckart nec Kuetzing, type *Ascaris bufonis* Schrank, STILES & HASSALL Bull. Bur. Anim. Ind. Washington 79 1905 pp. 123, 150; *ophidia* Goodey in lung of *Natrix tigrina* p. 567 pls. ii, iv, *fuscovenosa* (Raill.) in "green snake" p. 568 pl. iv, China, HSÜ & HOEPLI Nat. Med. J. China 17 1931.

*Rhabditis tenuicaudata* Menzel pp. 3-9 figs. 1-13, *nudicapitata* pp. 10-12 figs. 14-21, *longistoma* pp. 12-13 pp. 22-23, *typica* p. 14 fig. 25, *varsaviensis* p. 15 fig. 28, *cephaloides* p. 16 fig. 29 spp. n. Poland, STEFANSKI Arch. Biol. Soc. Sc. Varsovie 1 vi 1922; *ciliata* pp. 121-131 figs. 1-10, *armata* pp. 131-137 figs. 11-20, *mutatoris* pp. 138-141 figs. 21-23, *variabilis* pp. 141-147 figs. 24-32 spp. n., FUCHS Zool. Jahrb. Syst. Jena 62 1931; *broughton-alcocki* sp. n. in an ice-chest, England, BUCKLEY J. Helminth. London 9 1931 pp. 197-204 7 figs.; species resembling *R. hominis* in man, Australia, HEYDON & GREEN Med. J. Australia Sydney 1931 i pp. 619-628 1 fig.

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*Rhabdolaimus aquaticus* de Man Japan, IMAMURA J. Coll. Agric. Tokyo 11 1931 p. 209 fig. 18.

*Rictularia whartoni* sp. n. in stomach and small intestine of *Mus norvegicus*, Philippine Is., TUBANGUI Philipp. J. Sc. Manila 46 1931 pp. 579-581 fig. 18.

*Sabatieria norwegica* sp. n. Norway coast, ALLGÉN Zool. Jahrb. Jena (Syst.) 61 1931 pp. 260-261 fig. 16.

*Scarabanema* gen. n. *Oxyuridae*, *cylindricum* sp. n. in intestine of larva of *Scarabacidae* (Coleoptera), to include

*Oxyuris leuckarti* Hammersch. and *Aorurus brevicaudatus* (Leidy), CHRISTIE J. Agric. Res. Washington 42 1931 pp. 466-471.

*Schrankia* Trav., revision, TRAVASSOS Mem. Inst. Oswaldo Cruz Rio de Jan. 25 1931 pp. 284-286 pls. lxxvii-lxxiii.

*Sclerostoma sipunculiforme* (Baird) in Indian elephant, Bengal, MITTER J. Comp. Path. Ther. Edinburgh 25 1912 p. 111 figs. a, b.

*Seinura* gen. n. *Tylenchidae*, *mali* sp. n. on *Scolytus mali*, FUCHS Zool. Anz. Leipzig 94 1931 pp. 226-228 5 figs.

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*Seurocyrnea* gen. nom. n. pro *Cyrnea* Seurat 1914 nec Deshayes 1858, STRAND Acta Univ. Latviensis Riga 20 1929 p. 4.

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*Skrjabinochona* gen. n. *Spiruridae*, *apterocerca* sp. n. in intestine of *Tetra urogallus*, Siberia, GUSCHANSKAJA Zool. Anz. Leipzig 94 1931 pp. 277-281 4 figs.

*Spilophira ophrydii* sp. n. Lake Geneva, STEFANSKI Nématodes libres du Léman Geneva 1914 pp. 30-32 pl. i fig. 9.

*Spirina parasitifera* Bast. Norway coast, ALLGÉN Zool. Jahrb. Jena (Syst.) 61 1931 pp. 237-238 fig. 8.

*Spiroptera orca* Linst. 1906 probably referable to *Habronema* p. 192, *orca* v. Linst. of Mönnig, 1924, identified as *Habronema hamospiculatum* (Nev.-Lem.) p. 191, BAYLIS Ann. Mag. Nat. Hist. London (10) 8 1931.

*Spiroxys japonica* Morishita in duodenum of *Rana nigromaculata*, China, HSÜ & HOEPLI Nat. Med. J. China 17 1931 p. 573.

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*Strongyloides avium* sp. n. in the chicken, CRAM North Amer. Vet. Chicago 10 1929 pp. 27-30; *ratti* Sandground in intestine of *Mus norvegicus* Philippine Is., TUBANGUI Philipp. J. Sc. Manila 46 1931 pp. 560-562 fig. 9.

*Strongyluris brevicaudata* Mueller in intestine of lizard, *Japalura splendida*, China, HSÜ & HOEPLI Nat. Med. J. China 17 1931 pp. 569-571 pl. ii.

*Strongylus falcifer* (Cobbold) in Indian elephant, MITTER J. Comp. Path. Ther. Edinburgh 25 1912 p. 113 figs. c-d.

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*Synhimantus sirry* sp. n. in gizzard of *Pelecanus onocrotalus*, Egypt, KHALIL Ann. Trop. Med. Parasit. Liverpool 25 1931 pp. 455-458 figs. 1-2.

*Syphacia obvelata* (Rud.) in Muridae, Armenia, SCHULZ Oeuvres Inst. Trop. Armenie Erivan 1 1924 pp. 42-43 figs. 1-3; in intestine of *Mus norvegicus*, Philippine Is., TUBANGUI Philipp. J. Sc. Manila 46 1931 pp. 569-571 fig. 13.

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*Teratocephalus terrestris* (Bütsch.) p. 33 pl. i fig. 7, *crassidens* Man p. 34, *palustris* Man p. 35 pl. ii fig. 10, Switzerland, STEFANSKI Nématodes libres du Léman 1914.

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68 1910; *rhodesi* (Desmarest) in eye of cattle, Roumania, UDRISKI & CIUREA Arhiva veterinara Bucuresti 15 1921 ii 3 pp.; *erschowi* sp. n. [= *Thelazia* sp. Erschow 1928] in eye of pig, Moscow, OSERSKAJA Tierärztl. Rundsch. Friedenau 37 1931 pp. 656-657; *californiensis* Price on eyeball and conjunctiva of dog, California, PRICE North Amer. Vet. Evanston 12 1931 no. 11 6 pp. 4 figs.

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*Trichosomoides crassicauda* (Bellingh.) in bladder of *Mus norvegicus*, Philippine Is., TUBANGUI Philipp. J. Sc. Manila 46 1931 pp. 562-564 fig. 10.

*Trichostrongylidae* [fam. n.], LEIPER J. London Sch. Trop. Med. 1 1911 p. 116.

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*Acanthocephalus acutulus* sp. n. in intestine of *Triturus viridescens* North Carolina, VAN CLEAVE Trans. Amer. Micr. Soc. Menasha 50 1931 pp. 46-47 2 figs.; *aculeatus* in blue back salmon, *Onchorhynchus nerka* pp. 33-35 figs. 1-2, *acerbus* in *Salmo iridens* pp. 35-37 fig. 3 spp. n. Japan, VAN CLEAVE Annot. zool. Jap. 13 1931.

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### (c) Rotifera.

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*Colurella adriatica* Ehrb. pp. 174-177 fig. 12, *colurus* (Ehrb.) pp. 177-179 fig. 13, *dicentra* (Gosse) pp. 180-181 fig. 14, Holstein, HAUER Mitt. Geog. Ges. Lübeck (2) 30 1925; *hindenburgii* Steinecke, North Caucasus, TARNOGRADSKY Trav. Stat. Biol. Caucase Nord 3 1930 p. 134 fig. 15.

*Dicranophorus torvitoides* sp. n., SMIRNOV Abh. Pamir-Exped. Lenin-grad 2 1930 p. 90 pl. i figs. 3, 5.

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*Lepadella similis* (Lucks) p. 171 fig. 10, *triptera* Ehrb. p. 172 fig. 11, Holstein, HAUER t.c.; *pumilo* pp. 181-182 fig. 7, *voighti* pp. 182-184 fig. 8 spp. n. Germany, HAUER Zool. Anz. Leipzig 94 1931; *rezvoji* sp. n. Russia, SMIRNOV C.R. Acad. Sc. Leningrad 1931 ii pp. 55-57 fig. 1.

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*Synchaeta lakowitzi* sp. n. Mariensee, LUCKS Ber. westpreuss. bot.-zool. Ver. 53 viii 1931 p. 47 fig. 12.

*Testudinella patina* (Herm.), Holstein, HAUER Mitt. Geog. Ges. Lübeck (2) 30 1925 p. 185; *tridentata* sp. n. Russia, SMIRNOV C.R. Acad. Sc. Leningrad 1931 ii pp. 57-58 fig. 2.

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658; PING, 822. Japan: HATAI, 403, 404; YAMAGUCHI, 1215. Malay Peninsula: STEPHENSON, 1051. Philippine Is.: MICHAELSEN, 656. Sumatra: MICHAELSEN, 657. *Hirudinea*: Dutch East Indies: AUGENER, 40, 41; HARDING, 393. Japan: OKA, 751. China: OKA, 753; WU, 1211. *Echiuroidea*: Japan: SATO, 917.

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# VII. BRACHIOPODA AND BRYOZOA

## (a) BRACHIOPODA

BY

H. M. MUIR-WOOD, M.Sc.

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**Carboniferous.**—England, GEORGE, 52; MUIR-WOOD, 96; Belgium, DEMANET, 34; Germany, WIRTH, 157; PAECKELMANN, 107; WEHRLI, 153; Carnic Alps, HERITSCH, 66; GAERTNER, 51; Gailtal, AIGNER, 2; Carinthia, SCHMIDT, 135; S. Alps, AIGNER & HERITSCH, 3; I. of Rodi, Aegean Sea, MIGLIORINI, 93; Russia, NALIVKIN, 97; ROTAI, 125, 126; SEMICHATOV, 138; China, OZAKI, 106; Afghanistan, REED, 118; Greenland, FIEBOLD, 45A; ROSENKRANTZ, 124; Texas, PLUMMER & MOORE, 116; KING & KING, 76; U.S.A., SAYRE, 132; NEWELL, 98; Andes, GERTH & KRÄUSEL, 56.

**Permian.**—Germany, ERNST, 39; Russia, LICHAREW, 84, 85; Caucasus, LICHAREW, 86; Sicily, RUIZ, 129; Greenland, FIEBOLD, 45, 45B; Mongolia, GRABAU, 58; Madagascar, BESAIRIE, 17; Texas, KING, 75; KING & KING, 76.

**Mesozoic.**—Spain, VILA, 148; U.S.A., GOLDRING, 57.

**Trias.**—Germany, SCHEFFEN, 133; Lombardy, TRÜMPY, 147; Greenland, SPATH, 141; Japan, KOBAYASHI, 79; Dutch E. Indies, PANNEKOEK, 109; Madagascar, BESAIRIE, 17; New Zealand, WILCKENS, 155.

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NOTE.—Classification according to C. Schuchert and C. M. Le Vene in Fossilium Catalogus I 42 Brachiopoda 1929.

Full references are given only in the case of a new species. In other cases the numeral in "Large bold clarendon" refers to the list of titles where the full reference may be found. In the case where a reference is given in the Systematic Part, the volume number is printed in "Small bold clarendon."

#### ORDER PALAEOTREMATA.

Vacant.

#### ORDER ATREMATA.

##### OBOLACEA.

###### MICROMITRIDAE.

†*Mickwitzia monilifera* p. 15, *formosa*, sp. p. 16, ÖPIK 103.

##### OBOLIDAE.

†*Lingulella marcia*, *kayseri*, *liui*, p. 155, *yingtzuensis* sp. n. p. 156, *dimorpha* p. 157 Cambro-Ordovician Manchuria, KOBAYASHI Japan J. Geol. Geogr. Tokyo 3 3.

†*Obolus taianensis* p. 152, *huanhsilingensis* sp. n., *huanhsiensis* p. 153, Cambro-Ordovician Manchuria, KOBAYASHI Japan J. Geol. Geogr. Tokyo 3 3.

##### ANDOBOLIDAE.

†*Andobolidae* fam. n. for *Andobolus* gen. n. belonging to 'superfamily Obolacea, Ordovician, KOZLOWSKI Bull. Serv. géol. Pologne 6 2 p. 301, 322.

†*Andobolus* gen. n. type *A. jackowskii* sp. n. pp. 295, 316, Ordovician Bolivia, KOZLOWSKI Bull. Serv. géol. Pologne 6 2.

##### LINGULACEA.

###### LINGULIDAE.

†*Bistramia oboliformis* sp. n. p. 306, 327, Ordovician Bolivia, KOZLOWSKI Bull. Serv. géol. Pologne 6 2.

†*Lingula* sp. figured, BEKKER 9 pl. 1.—*L. alsatica*, *beani*, DEECKE 33 p. 19.—*L. mytiloides* p. 9, PFANNENSTIEL 115.—*L. tenuissima*, *deitersensis*, sp., SCHEFFEN 133 p. 8.—*L.*, recorded from Cambrian of Ardennes, CHARLES 26 p. 197b.—*L.*, recorded from Chalk at Trimmingham, BRYDONE 22 p. 429.—*L.* sp. figured p. l xiii, PLUMMER & MOORE 116.—*L. balderrami* sp. n. pp. 302, 323, *amygdala* sp. n. pp. 303, 324, Ordovician Bolivia, KOZLOWSKI Bull. Serv. géol. Pologne 6 2.—*L.* ? sp., ? *shumardi* p. 81, ADKINS 1.—*L. melie*, BURGESS 24 p. 197.—*L. mytiloides*, WEHRLI 153 p. 96.—*L. waikatoensis* sp. n. Tertiary New Zealand, PENSELER Trans. Proc. N.Z. Inst. 61 3-4 p. 444.—*L.* sp. p. 31, SOKOLOV & BODYLEVSKY 140.—*L. borealis* figured p. 58, SPATH 141.—*L.* sp., EICHENBERG 33 p. 159.—*L. rugosa* sp. n. p. 35, aff. *striata*, sp. p. 36 Silurian Poland, KOZLOWSKI Palaeont. polonica 1.

†*Lingulipora nebraskensis* figured pl. xxi, PLUMMER & MOORE 116.

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###### ACROTRETIDAE.

†*Acrotreta* sp. figured, ÖPIK 103 pl. i.

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†*Schizocrania* aff. *filosa* figured p. 81, BULMAN 23.—*S. striata* p. 37, KOZŁOWSKI 81.

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†*Discina* (*Discinisca*) *discoides* p. 8, SCHEFFEN 133.

†*Discina* (*Orbiculoidea*) *nitida*, WEHR-  
LI 153 p. 98.—*D. (?) Orbiculoidea*  
*rhaetica*, SCHEFFEN 133 p. 8.

†*Discina silesiaca*, SCHEFFEN 133 p. 8.  
—*D. linki, reflexa, quenstedti*, cf. *david-  
soni*, DEECKE 33 p. 19.

†*Orbiculoidea major*, SCHEFFEN 133  
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*O. jatuncacae sp. n.* pp. 303, 324,  
*capinotae sp. n.* pp. 305, 326, Ordovician  
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Pologne 6 2.—*O. sp.* p. 246, ROY &  
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†*Craniidae* discussed, KOZŁOWSKI 81  
p. 40.

†*Crania* cf. *eocaenica* figured, COSS-  
MANN 28 p. 157.—*C. ignabergensis*,  
*spinulosa, craniolaris, quadrangularis*,  
*tuberculata*, cf. *ignabergensis* (f. *costata*)  
figured pls. i, ii, VOIGT 149.—*C. ? sp.*  
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*ignabergense* p. 646, RIEDEL 121.—*C.*  
*tubulosa* p. 287, *rosenbergi, faxensis*  
p. 288, figured, NIELSEN 99.

†*Philhedra mosellana sp. n.* p. 91,  
*rhenana sp. n.* p. 92, (?) *sp.* = *P. cf.*  
*schwerdi* p. 93 Devonian Germany,  
DAHMER Jahrb. preuss. geol. LdAnst.  
51 1.—*P. umbrella sp. n.* p. 42, Silurian  
Poland, KOZŁOWSKI Palaeont. polonica  
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†*Philhedrella* subgen. n. of *Philhedra*  
type *P. mimetica sp. n.* pp. 28, 43,  
Silurian Poland, KOZŁOWSKI Palaeont.  
polonica 1.

†*Pholidops* cf. *antiqua* p. 45, KOZŁOW-  
SKI 81.

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†*Orthoidea* suborder n. to include  
Orthacea, Dalmanellacea, Clitambona-  
cea, SCHUCHERT & COOPER Amer. J. Sci.  
New Haven 22 129 p. 241.

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†*Nisusiidae* fam. n. for *Nisusia*,  
*Jamesella*, SCHUCHERT & COOPER Amer.  
J. Sci. New Haven 22 129 p. 242.

## PROTORTHIDAE.

†*Protorthidae* fam. n. for *Protorthis*,  
*Loperia*, SCHUCHERT & COOPER Amer.  
J. Sci. New Haven 22 129 p. 242.

## EOORTHIDAE.

†*Eoorthidae* fam. n. for *Orusiinae*  
subfam. n., *Eoorthinae*, SCHUCHERT &  
COOPER Amer. J. Sci. New Haven 22 129  
p. 242.

†*Orusiinae* subfam. n. with *Orusia*,  
SCHUCHERT & COOPER Amer. J. Sci.  
New Haven 22 129 p. 242.

†*Bohemiella* gen. n. type *Orthis*  
*romingeri* Bartande, SCHUCHERT &  
COOPER Amer. J. Sci. New Haven 22 129  
p. 242.

†*Oligomys* gen. n. type *Orthis expor-  
recta* Linnarsson, SCHUCHERT & COOPER  
Amer. J. Sci. New Haven 22 129  
p. 243.

## PLECTORTHIDAE.

†*Cyclocoelinae* subfam. n. cf. *Plec-  
torthidae* with *Cyclocoelia*, SCHUCHERT  
& COOPER Amer. J. Sci. New Haven 22  
129 p. 243.

†*Finkelburgiinae* subfam. n. of  
*Plectorthidae* with *Finkelburgia*,  
SCHUCHERT & COOPER Amer. J. Sci.  
New Haven 22 129.

†*Hebertella ? sp.*, GAERTNER 50 p. 225.

## SCENIDIIDAE.

†*Scenidiidae* fam. n. for *Scenidium*,  
*Mystrophora* Ordovician - Devonian,  
KOZŁOWSKI Palaeont. polonica 1 p. 29.

†*Scenidium* discussed p. 46, *lewisii* sp. n. *orthisiforme* sp. n. p. 50, Silurian Poland, KOZŁOWSKI *Palaeont. polonica* 1.

†*Skenidioides* gen. n. type, *S. billingsi* sp. n. Ordovician Canada, SCHUCHERT & COOPER Amer. J. Sci. New Haven 22 129 p. 243.

#### ORTHIDAE.

†Orthidae gen. et. sp. indet. figured, KOZŁOWSKI 82 pp. 305, 326.—O. discussed p. 51, analytical table of genera p. 55, KOZŁOWSKI 81.

†Angusticardiniinae subfam. n. of Orthidae with *Angusticardinia* gen. n., SCHUCHERT & COOPER Amer. J. Sci. New Haven 22 129.

†Glyptorthinae subfam. n. of Orthidae with *Glyptorthis*, *Eridorthis*, *Ptychopleurella* gen. n., SCHUCHERT & COOPER Amer. J. Sci. New Haven 22 129 p. 243.

†Hesperorthinae subfam. n. of Orthidae with *Schizorammina*, *Hesperorthis* gen. n., *Dolerorthis* gen. n., SCHUCHERT & COOPER Amer. J. Sci. New Haven 22 129 p. 243.

†Orthinae subfam. n. cf. Orthidae with *Orthis*, *Nicolella*, *Glossorthis*, *Cyrtotonotella* gen. n., *Paurorthis* gen. n., *Archaeorthis* gen. n., SCHUCHERT & COOPER Amer. J. Sci. New Haven 22 129 p. 243.

†Productorthinae subfam. n., of Orthidae with *Productorthis*, *Panderina* gen. n., SCHUCHERT & COOPER Amer. J. Sci. New Haven 22 129 p. 243.

†Taffinae subfam. n. of Orthidae with *Taffia*, *Eostrophomena*, SCHUCHERT & COOPER Amer. J. Sci. New Haven 22 129 p. 243.

†*Angusticardinia* gen. n. type *Porambonites recta* Pander, SCHUCHERT & COOPER Amer. J. Sci. New Haven 22 129 p. 244.

†*Archaeorthis* gen. n. type *Orthis electra* Billings, SCHUCHERT & COOPER Amer. J. Sci. New Haven 22 129 p. 243.

†*Cyrtotonotella* gen. n. type *Orthis semicircularis* Eichwald, SCHUCHERT & COOPER Amer. J. Sci. New Haven 22 129 p. 243.

†*Dolerorthis* gen. n. type *Orthis interplicata* Foerste, SCHUCHERT & COOPER Amer. J. Sci. New Haven 22 129 p. 244.

†*Hesperorthis* gen. n. type *Orthis tricenaria* Conrad, SCHUCHERT & COOPER Amer. J. Sci. New Haven 22 129 p. 244.

†*Orthis actoniae* p. 223, cf. *calligramma*, cf. *carausii*, cf. *edgelliana* p. 224, cf. *duftonensis* p. 225, GAERTNER 50.—*O. ? fritschii*, cf. *st. ivanensis*, *venustula* p. 229, GAERTNER 50.—*O. cf. trigeri*, *provulvaria* p. 160, aff. *fornicatimcurvata* p. 161, EICHENBERG 38.—*O. sp. a* p. 82, *b, c, d* p. 83, BULMAN 23.

†*Panderina* gen. n. type *Productus abscissus* Pander, SCHUCHERT & COOPER Amer. J. Sci. New Haven 22 129 p. 243.

†*Paurorthis* gen. n. type *Orthambonites parva* Pander, SCHUCHERT & COOPER Amer. J. Sci. New Haven 22 129 p. 243.

†*Ptychopleurella* gen. n. type *Orthis bouchardi* Davidson, SCHUCHERT & COOPER Amer. J. Sci. New Haven 22 129 p. 244.

#### DINORTHIDAE.

†Dinorthidae fam. n. for *Dinorthis*, *Plaesiomys*, *Pionorthis* gen. n., *Retrorsirostra* gen. n., *Marionella*, *Valcourea*, *Multicostella* gen. n., *Austinella*, *Palaeostrophomena*, *Planidorsa* gen. n., SCHUCHERT & COOPER Amer. J. Sci. New Haven 22 129 p. 244.

†*Dinorthis maxima*, GAERTNER 50 p. 225.

†*Multicostella* gen. n. type *Orthis ? saffordi* Hall & Clarke, SCHUCHERT & COOPER Amer. J. Sci. New Haven 22 129 p. 244.

†*Pionorthis* gen. n. type *Orthis sola* Billings, SCHUCHERT & COOPER Amer. J. Sci. New Haven 22 129 p. 244.

†*Planidorsa* gen. n. type *P. bella* sp. n. Ordovician U.S.A., SCHUCHERT & COOPER Amer. J. Sci. New Haven 22 129 p. 244.

†*Retrorsirostra* gen. n. type *Orthis carleyi* Hall, SCHUCHERT & COOPER Amer. J. Sci. New Haven 22 129 p. 244.

#### PORAMBONITIDAE.

†Porambonitidae discussed, SCHUCHERT & COOPER 137 p. 244.

†*Porambonites* sp. figured, ÖPIK 105 pl. i.—*P. sardons*, GAERTNER 50 p. 230.—*P. reticulata*, *deformata* p. 21, *baueri*, *schmidti*, *ventricosa*, cf. *gigas*, p. 22, TEICHERT 146.

## LYCOPHORIIDAE.

†*Lycophoriidae* fam. n. with *Lycophoria*, SCHUCHERT & COOPER Amer. J. Sci. New Haven 22 129 p. 245.

## CLITAMBONACEA.

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†*Deltatretidae* fam. n. with *Deltatretra*, SCHUCHERT & COOPER Amer. J. Sci. New Haven 22 129 p. 245.

## CLITAMBONITIDAE.

†*Clitambonitinae* subfam. n. with *Clitambonites*, *Vellamo*, *Orthisina*, *Hemipronites*, *Polytoechia*, *Estlandia* gen. n., *Pahlenella* gen. n., *Apomatella* gen. n., SCHUCHERT & COOPER Amer. J. Sci. New Haven 22 129 p. 245.

†*Gonambonitinae* subfam. n. with *Gonambonites*, SCHUCHERT & COOPER Amer. J. Sci. New Haven 22 129 p. 245.

†*Apomatella* gen. n. type *Orthisina ingraca* Pahlen, SCHUCHERT & COOPER Amer. J. Sci. New Haven 22 129 p. 245.

†*Clitambonites* sp. figured, ÖPIK 104 pl. i.—*C. marginatus* figured, ÖPIK 105 p. i.

†*Estlandia* gen. n. type *Orthisina marginata* Pahlen, SCHUCHERT & COOPER Amer. J. Sci. New Haven 22 129 p. 245.

†*Pahlenella* gen. n. type *Orthis trigonula* Pahlen 1877, SCHUCHERT & COOPER Amer. J. Sci. New Haven 22 129 p. 245.

## DALMANELLACEA.

†*Dalmanellacea* superfam. n. with *Dalmanellidae*, *Bilobitidae* fam. n., *Mystrophoridae* fam. n., *Rhipidomellidae*, *Heterorthidae* fam. n., *Schizophoriidae*, *Linoporellidae* fam. n., SCHUCHERT & COOPER Amer. J. Sci. New Haven 22 129 p. 245.

## DALMANELLIDAE.

†*Aulacella* gen. n. type *Orthis eifelensis* Schnur., SCHUCHERT & COOPER Amer. J. Sci. New Haven 22 129 p. 246.

†*Cariniferella* gen. n. type *Orthis carinata*, Hall, SCHUCHERT & COOPER Amer. J. Sci. New Haven 22 129 p. 246.

†*Dalmanella canaliculata*, cf. *hirmatensis*, *honorata* p. 226, *notata*, cf. *novaresei* p. 227, cf. *occlusa*, *praecursor*

var. *sulcata*, *tariccoi* p. 228, GAERTNER 50.—*D.* genus amended lectotype *Orthis rogata* Sardeson, SCHUCHERT & COOPER 137 p. 245.—*D.* diagnosed p. 58, *elegantuloides* sp. n. p. 63, *crassiformis* p. 67, *testudinaria* figured p. 66, *gervillei* p. 70, *cimex* sp. n. p. 71, Silurian Poland, KOZŁOWSKI Palaeont. polonica 1.—*Orthis* (*D.*) *circularis* p. 159, EICHENBERG 38.

†*Levenea* gen. n. type *Orthis subcarinata* Hall, SCHUCHERT & COOPER Amer. J. Sci. New Haven 22 129 p. 246.

## WATSELLIDAE.

†*Watsellidae* fam. n. with *Orderleyella*, *Wattella*, *Idiorthis*, *Mendacella*, *Parmorthis* gen. n., *Fascicostella* gen. n., SCHUCHERT & COOPER Amer. J. Sci. New Haven 22 129 p. 246.

†*Fascicostella* gen. n. type *Orthis gervillei* Defrance, SCHUCHERT & COOPER Amer. J. Sci. New Haven 22 129 p. 246.

†*Parmorthis* gen. n. type *Orthis elegantula* Dalman, SCHUCHERT & COOPER Amer. J. Sci. New Haven 22 129 p. 246.

## BILOBITIDAE.

†*Bilobitidae* fam. n. with *Bilobites*, SCHUCHERT & COOPER Amer. J. Sci. New Haven 22 129 p. 246.

†*Bilobites* sp., GAERTNER 50 p. 229.—*B. bilobus* p. 60, figured, KOZŁOWSKI 81.

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†*Mystrophoridae* fam. n. with *Mystrophora*, ? *Kayserella*, SCHUCHERT & COOPER Amer. J. Sci. New Haven 22 129 p. 246.

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†*Perditocardinia* gen. n. type *Orthis dubia* Hall, SCHUCHERT & COOPER Amer. J. Sci. New Haven 22 129 p. 246.

†*Platyorthis* gen. n. type *Orthis planoconvexa* Hall, SCHUCHERT & COOPER Amer. J. Sci. New Haven 22 129 p. 246.

†*Rhipidomella carbonaria*, *hessensis* sp. n., *leonardensis* sp. n. p. 43, *mesoplatys* sp. n., *mesoplatys baylorensis* var. n., *transversa* sp. n. p. 44 Permian Texas, KING Bull. Texas Univ. 3042. — *R.* diagnosed p. 59, *staszici* sp. n. p. 81, *frequens* sp. n. p. 83, Silurian Poland, KOZŁOWSKI Palaeont. polonica 1.—*R. michelini* p. 45, ROTAI 125.



## HETERORTHIDAE.

†*Heterorthidae* fam. n. with subfams. *Heterorthinae* subfam. n. Harknessellinae, SCHUCHERT & COOPER Amer. J. Sci. New Haven 22 129 p. 246.

†*Heterorthinae* subfam. n. of *Heterorthidae* with *Heterorthis*, SCHUCHERT & COOPER Amer. J. Sci. New Haven 22 129 p. 246.

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†*Isorthinae* subfam. n. of *Schizophoriidae* with *Isorthis* Palaeozoic, SCHUCHERT & COOPER Amer. J. Sci. New Haven 22 129 p. 249.

†*Aulacophoria* gen. n. type *Orthis keyserlingiana* De Koninck, SCHUCHERT & COOPER Amer. J. Sci. New Haven 22 129 p. 247.

†*Enteletes hemiplicata* p. 169, *lamarckii* p. 171, OZAKI 106.—*E. hemiplicata* pl. xxiv, PLUMMER & MOORE 116.—*E. suessi* var. *acuticostata* p. 7, figured, HERITSCH 66.—*E. andrewsi* sp. n. p. 222, *angulatoplicata* sp. n. p. 227, *obesa* sp. n. p. 229, *subobesa* sp. n. p. 235, *nucleola* sp. n. p. 237, Permian Mongolia, GRABAU Nat. Hist. Central Asia, New York 4.—*E. plattsmouthensis* sp. n. p. 162, *pugnoides* sp. n. p. 263, *hemiplicatus*, var. *plattsburgensis* var. n. p. 265, *transversus* sp. n. p. 266 Ur. Carboniferous U.S.A., NEWELL J. Paleont. Sharon Mass. 5 3.—*E. dumblei* p. 45, *leonardensis* sp. n., *lumbonus* sp. n. p. 46, *plummeri* sp. n., *wolfcampensis* sp. n., *wordensis* sp. n. p. 47, Permian Texas, KING Bull. Univ. Texas 3042.

†*Enteletina* gen. n. type *Enteletes latesinuatus* Waagen, SCHUCHERT & COOPER Amer. J. Sci. New Haven 22 129 p. 247.

†*Isorthis* subgen. n. of *Dalmanella* type *I. szajnochai* sp. n. pp. 29, 59, 75, Silurian Poland, KOZLOWSKI Palaeont. polonica 1.

†*Orthotichia kozlowski* sp. n. Permian Texas, KING Bull. Texas Univ. 3042 p. 45.—*O. derbyi* var. *nana* var. n. p. 220, Permian Mongolia, GRABAU Nat. Hist. Central Asia, New York, 4.

†*Parenteletes* gen. n. type *P. cooperi* sp. n. pp. 48, 49, Permian Texas, KING Bull. Univ. Texas 3042.—*P.* diagnosed, SCHUCHERT & COOPER 137 p. 247.

†*Schizophoria striatula*, BEKKER 10 p. 29 & pl. v.—*S.* diagnosed p. 59, *fragilis* sp. n. p. 79, Silurian Poland,

KOZLOWSKI Palaeont. polonica 1.—*S. indica* p. 167, OZAKI 106.—*S. texana*, NEWELL 98 p. 267.—*S. resupinata*, sp. nov. ? p. 44, ROTAI 125.—*Orthis (S.) resupinata* p. 9, PFANNENSTIEL 115.

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†*Linoporellidae* fam. n. with *Linoporella* gen. n. and ? *Orthotrophia*, SCHUCHERT & COOPER Amer. J. Sci. New Haven 22 129 p. 247.

†*Linoporella* gen. n. type *Orthis punctata* Verneuil, SCHUCHERT & COOPER Amer. J. Sci. New Haven 22 129 p. 247.

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†*Pentameroidea* suborder n. with *Syntrophiaceae* superfam. n. and *Pentameracea*, SCHUCHERT & COOPER Amer. J. Sci. New Haven 22 129 pp. 242, 247.

## SYNTROPHIACEA.

†*Syntrophiaceae* superfam. n. to include *Clarkellidae* fam. n., *Syntrophidae*, *Huenellidae* fam. n. pp. 242, 247, SCHUCHERT & COOPER Amer. J. Sci. New Haven 22 129.

## CLARKELLIDAE.

†*Clarkellidae* fam. n. with *Clarkella Yangtzeella*, *Syntrophina*, *Syntrophioidea* gen. n., SCHUCHERT & COOPER Amer. J. Sci. New Haven 22 129 p. 247.

†*Syntrophioidea* gen. n. type *Billingella harlanensis* Walcott, SCHUCHERT & COOPER Amer. J. Sci. New Haven 22 129 p. 247.

## HUENELLIDAE.

†*Huenellidae* fam. n. for *Huenella*, *Huenellina* gen. n., SCHUCHERT & COOPER Amer. J. Sci. New Haven 22 129 p. 247.

†*Huenellina* gen. n. type *H. triplicata* Walcott, SCHUCHERT & COOPER Amer. J. Sci. New Haven 22 129 p. 247.

## PENTAMERACEA.

†*Pentameracea* discussed, interna structure illustrated p. 123, KOZLOWSKI 81.

## CAMARELLIDAE.

†*Anastrophia* discussed, *magnifica* sp. n. p. 140, Silurian Poland, KOZLOWSKI Palaeont. polonica 1.

†*Parastrophinella* gen. n. type *Pentamerus reversus* Billings, SCHUCHERT & COOPER Amer. J. Sci. New Haven 22 129 p. 248.

†*Rhynchocamara* gen. n. type *R. plicata* sp. n. p. 248, Ordovician U.S.A., SCHUCHERT & COOPER Amer. J. Sci. New Haven 22 129.

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†*Barrandella linguifera* internal structure figured, KOZŁOWSKI 81 p. 137.

†*Barrandella* (*Clorinda*) *pseudolinguifera* sp. n. p. 137 Silurian Poland, KOZŁOWSKI Palaeont. polonica 1.

†*Camarophoria* defined and internal structure figured p. 24, *swallovi* p. 25, *paupera* sp. n. p. 27, *nora* sp. n. p. 28, *retziaformis* sp. n. p. 29, *planodorsata* sp. n. p. 30, *perplexa* sp. n. p. 31, *prolifera* sp. n. p. 32, Devonian U.S.A., BELANSKI Univ. Iowa Studies Iowa City 12 7.—*C. mutabilis* p. 211, *superstes* p. 214, *purdoniformis* sp. n. p. 218, Permian Mongolia, GRABAU Nat. Hist. Central Asia New York 4.—*C. donica* sp. n. pp. 68, 129, var. *costata* var. n. pp. 70, 130, sp. p. 71 Carboniferous Russia, ROTAI Trans. Geol. Prospect. Ser. U.S.S.R. 73.—*C. schlottheimi* figured, ERNST 39, pl. vi.—*C. Sancti Spiritus* p. 20 figured, HERITSCH 66.—*C. crumena* var. *alsatica*, PFANNSTIEL 115 p. 11.—*C. deloi* sp. n., *theveneni*, *venusta* p. 110, ? *indentata* p. 111, KING 75.—*C. sella* p. 152, *meyeri* sp. n.; var. *tetraplicata* var. n. p. 154, *tanankouensis* sp. n. p. 156, *shanksiensis* sp. n. p. 157, *purdoniformis* sp. n. p. 159, ? sp. nov. p. 160, sp. indet. p. 161 Upper Carboniferous China, OZAKI Bull. Shanghai Inst. Sci. 1 6.—*C. sella* var. *transversalis* var. n. Ur. Carboniferous Afghanistan, REED Palaeont. Ind. Calcutta 19 p. 23.

†*Chlorinda carnica* GAERTNER 50 p. 230.

†*Conchidium* sp., KOZŁOWSKI 81 p. 143.

†*Gypidula* defined and internal structure figured, p. 6, *occidentalis* p. 8, *comis* p. 9, *papyracea* sp. n. p. 12, *rostrata* sp. n. p. 13, *cornuta* p. 14, *parva* p. 16, *nucleolata* sp. n. p. 19, Devonian U.S.A., BELANSKI Univ. Iowa Studies Iowa City 12 7.

†*Liocoelia* gen. n. type *Pentamerus proximus* Barrande, SCHUCHERT & COOPER Amer. J. Sci. New Haven 22 129 p. 248.

†*Lissocoelina* gen. n. type *Pentamerus pergibbosus* Hall & Whitfield, SCHUCHERT & COOPER Amer. J. Sci. New Haven 22 129 p. 248.

†*Pentameroides* gen. n. type *Pentamerus oblongus subrectus* Hall & Clarke, SCHUCHERT & COOPER Amer. J. Sci. New Haven 22 129 p. 248.

†*Pentamerus globus* (?) figured, WINTERFELD 156 p. 123.—*P. problematicus*, sp. p. 382, EICHENBERG 37.—*P. sp.* (aff. *procerulus* Barr.), *volaicus* p. 231, GAERTNER 50.

†*Pseudocamarophoria* gen. n. nom. nud. type *Terebratula microrhyncha* p. 197, WEDEKIND in SALAMON, W. Grundzüge der Geologie 2 1926.

†*Rhipidium* gen. n. type *Pentamerus knappi* Hall & Whitfield, SCHUCHERT & COOPER Amer. J. Sci. New Haven 22 129 p. 249.

†*Sieberella* defined p. 20, *emarginata* sp. n. p. 21, *insolita* sp. n. p. 22, Devonian U.S.A., BELANSKI Univ. Iowa Studies, Iowa City 12 7.—*S. cf. galeata* p. 135, structure figured, KOZŁOWSKI 81.—*S. cf. sieberi*, GAERTNER 50 p. 231.

†*Uncinuloides* gen. n. type *Rhynchonella guadalupae* Shumard p. 112 Permian Texas, KING Univ. Texas Bull. 3042.

#### STROPHOMENACEA.

##### STROPHOMENIDAE.

†*Christiania oblonga, tenuicincta* p. 235, GAERTNER 50.

†*Derbyia buchi*, ? *crenulata* p. 58, *cymbula*, *elevata* sp. n., *nasuta* p. 59, Permian Texas, KING Bull. Univ. Texas 3042.—*D. sp. aff. grandis* p. 41, FIEBOLD 45a.—*D. dupliciseptata* sp. n. p. 255, cf. *hemisphaerica* p. 262, Permian Mongolia, GRABAU Nat. Hist. Central Asia, New York 4.—*D. (?) Derbyina mongolica* sp. n. p. 259 Permian Mongolia, GRABAU Nat. Hist. Central Asia, New York 4.—*D. crassa* p. 93, SAYRE 132.—*D. ambigua* sp. n. p. 144, Carboniferous Great Britain, MUIR-WOOD Quart. J. Geol. Soc. 87 1.—*D. altestriata* p. 9, figured, HERITSCH 66.—*D. ? sp. indet.*

p. 148, OZAKI 106.—*D. cymbula* pl. xxv, PLUMMER & MOORE 116.—*D.* aff. *grandis* p. 18, aff. *crassa* p. 19, figured, REED 118.

†*Derbyella* gen. n. type *D. bureri* sp. n. p. 269, 270, *subrotunda* sp. n. p. 273, *minor* sp. n. p. 275, Permian Mongolia, GRABAU Nat. Hist. Central Asia, New York 4.

†*Eoplectodonta* subgen. n. of *Plectodonta* gen. n. type *Sowerbyella praecursor* O. T. Jones p. 30, Ordovician-Silurian, KOZLOWSKI Palaeont. polonica 1.

†*Geyerella americana* p. 57 figured, KING 75.—*G. mongolica* sp. n. p. 267, Permian Mongolia, GRABAU Nat. Hist. Central Asia, New York 4.

†*Leptaena estonensis* figured, BEKKER 9 pl. i.—*L. rhomboidalis*, GAERTNER 50 p. 232.—*L. lepis* p. 164, *rhomboidalis* p. 165, EICHENBERG 38.—*L. rhomboidalis*, *emarginata* p. 90, figured, KOZLOWSKI 81.

†*Meekella uralica* p. 265, GRABAU 58.—*M. attenuata* p. 52, *difficilis* p. 53, *globosa* sp. n., *grandis* sp. n. p. 54, *irregularis texana* var. n., *mexicana* p. 55, *hessensis* sp. n., *skenooides*, *striatocostata* p. 56, sp. p. 57, Permian Texas, KING Bull. Univ. Texas 3042.—*M.* aff. *striatocostata* p. 19 figured, REED 118.

†*Pholidostrophia verrucosa* sp. n. Silurian Poland, KOZLOWSKI Palaeont. polonica 1 p. 94.

†*Orthotetella* gen. n. type *O. wolfcampensis* sp. n. p. 51 Permian Texas, KING Bull. Univ. Texas 3042.

†*Orthothetes crenistria*, *fascifera* p. 10, PFANNENSTIEL 115.

†*Orthothetes* (*Schuchertella*) cf. *umbraculum*, STEHN 143 p. 27.

†*Orthothetina* cf. *O. mutabilis* p. 52 figured, KING 75.—*O.* p. 250, *ruber* p. 251, cf. *eusarkos* p. 253, sp. p. 254, GRABAU 58.

†*Orthotetinae* discussed, KOZLOWSKI 81 p. 104.

†*Plectambonites sericeus* figured, ÖPIK 105 pl. ii.—*P. sericeus* p. 232, *transversalis* p. 233, GAERTNER 50.—*P. transversalis* p. 165, EICHENBERG 38.

†*Plectambonitidae* emend. p. 29, 108, KOZLOWSKI 81.

†*Plectodonta* gen. n. type *P. mariae* sp. n. pp. 29, 112, 114, Silurian Poland, KOZLOWSKI Palaeont. polonica 1.

†*Schellwienella praeumbracula* sp. n. p. 105, *wieniukowi* sp. n. p. 108, Silurian Poland, KOZLOWSKI Palaeont. polonica 1.—*S. crenistria* var. *kellii* p. 41, ROTAI 125.—*S. regina* sp. n. p. 248, Permian Mongolia, GRABAU Nat. Hist. Central Asia, New York 4.

†*Schuchertella bituminosa* pp. 42, 124, ROTAI 125.—*S. umbraculum*, EICHENBERG 38 p. 166.

†*Schuchertella* (*Streptorhynchus* ?) sp. n. ? figured, WIRTH 157 p. 73.

†*Streptorhynchus kayseri* p. 241, *pelargonatus* p. 243, *broilii* sp. n. p. 245, sp. p. 247, Permian Mongolia, GRABAU Nat. Hist. Central Asia, New York 4.—*S. ? crenistria* p. 149, OZAKI 106.—*S. undecimus* sp. n. p. 7, Carboniferous Carnic Alps, HERITSCH Abh. geol. Rchs. Anst. Wien 23 3 p. 7.—*S. kempei* pp. 19, 29, 41, FREBOLD 45A.—*S. pelargonatus* FREBOLD 45B p. 11.—*S. lamellatum* sp. n. *pygmaeum* p. 49, *pyramidale* sp. n. p. 50, *undulatum* sp. n. p. 51 Permian Texas, KING Bull. Univ. Texas 3042.

†*Stropheodonta* (*Brachyprion*) *subinterstitialis* sp. n. p. 96, *dzwiniogrodensis* sp. n., cf. *costatula* p. 100, Silurian Poland, KOZLOWSKI Palaeont. polonica 1.

†*Stropheodonta* (*Leptostrophia*) *explanata*, EICHENBERG 38 p. 163.

†*Stropheodonta corrugatella*, GAERTNER 50 p. 232.—*S. taeniolata*, *interstitialis*, *sedgwicki* p. 162, *murchisoni*, aff. *caudata* p. 163, EICHENBERG 38.

†*Strophomena filosa* p. 161, EICHENBERG 38.—*S. aquila* p. 233, cf. *aquila*, *asmusi*, *costatula*, n. sp. aff. *hirundo*, ? *myrmida* p. 235, GAERTNER 50.

†*Strophomenacea* discussed, KOZLOWSKI 81 p. 87.

†*Strophonella* (*Amphistrophia*) *podolica* p. 101, figured, KOZLOWSKI 81.

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†*Thecidea vermicularis* figured pl. i, VOIGT 149.

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†*Chonetes concentrica*, *dalmaniana*, *mac-coyana*, *papilionacea*, *tricornis*, *ventricosa* p. 10, PFANNENSTIEL 115.—*C. carbonifera* pp. 28, 38 figured, LICHAREW

85.—*C. sp. p. 17* figured, REED 118.—*C. choteauensis* pl. vi, *mesolobus euampygus*, *verneuillianus* pls. xiii, xxi, *granulifer* pls. xiii, xix, *meekianus* pl. xxiv, PLUMMER & MOORE 116.—*C. latesinuata* p. 10, *variolata*, *möllerii* var. *carnica*, *sinuosa* p. 11 figured, HERITSCH 66.—*C. cumbriensis* sp. n. p. 147, Carboniferous England, MUIR-WOOD Quart. J. Geol. Soc. London 87 1.—*C. verneuillianus* p. 94, SAYRE 132.—*C. papilionacea* p. 61, *magna* sp. n. pp. 62, 127, aff. *dalmaniana* p. 64, *hardrensisformis* sp. n. pp. 65, 128, *pseudovariolata* var. *fenia* var. n. pp. 66, 128, *sulcata*, cf. *buchiana* Carboniferous Russia, ROTAI Trans. Geol. Prosp. Serv. U.S.S.R. 73.—*C. dilatata*, EICHENBERG 38 p. 166.—*C. diagnosed*, *biplicatus* sp. n., *deliciasensis* sp. n., *granulifer* p. 60, *hessensis* sp. n., *hillanus*, *molengraafi* p. 61, *ostiolatus*, *permianus* p. 62, *quadratus* sp. n., *spinoliratus* sp. n., *spinoliratus diabloensis* var. n., *subliratus* p. 63, *verneuillianus* p. 64 Permian Texas, KING Bull. Univ. Texas 3042.—*C. zbrucensis* sp. n., *dniestrensis* sp. n. p. 118, *proliferus* sp. n. p. 119, *mediocostalis* sp. n. p. 120 Silurian Poland, KOZLOWSKI Palaeont. polonica 1.—*C. latesinuata* p. 95, *moelleri* p. 96, *sarcinulata* p. 97, OZAKI 106.

†*Chonetipustula* gen. n. type *Productus plicatus* Sarres pp. 31, 34, sp. n. 1, sp. n. 2, sp. n. 3 p. 32, sp. n. 4 p. 33, *concentrica* p. 37, var. *hassiacica* var. n. ? *turcica* p. 40, *carringtoniana* p. 41, sp. n. aff. *carringtoniana* p. 44 Carboniferous Germany, PAECKELMANN Abh. preuss. Geol. LdAnst. 136.

†*Irboskites* gen. n. type *I. fixatus* sp. n. p. 48, *pskovensis* sp. n. p. 50, Devonian Estonia, BEKKER Arch. Naturk. Estlands. Dorpat 10 1.

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†*Aulosteges gigantiformis* sp. n. p. 276, *grangeri* sp. n. p. 280 Permian Mongolia, GRABAU Nat. Hist. Central Asia, New York 4.—*A. discussed*, *beedei* sp. n. p. 92, *guadalupensis*, *magnicostatus*, *medicottianus* p. 93, *subcostatus* sp. n., *triagonalis* sp. n. p. 94, *tuberculatus* sp. n. *wolfcampensis* sp. n. p. 95, Permian Texas, KING Bull. Univ. Texas 3042.

†*Avonia boulei* p. 82, ? *incurvata* sp. n., *latidorsata*, *meekana*, *signata* p. 83, *subhorrida*, *subhorrida rugatula*

p. 84, *walcottiana*, *walcottiana costata* sp. n. p. 85, Permian Texas, KING Bull. Univ. Texas 3042.—*Productus (A.) bami-anus* sp. n. p. 14 Ur. Carboniferous Afghanistan, REED Palaeont. Ind. Calcutta 19.—*A. echidniformis* p. 108, *aculeatus* p. 110, sp. nov. ? p. 112, sp. indet. p. 113, OZAKI 106.—*Productus (A.) davidsoni* p. 89, sp. 1, 2, aff. *davidsoni*, *ratingensis* sp. n. p. 92, *drevermanni* sp. n. p. 94, *schmidtii* sp. n. p. 95, aff. *schmidtii* sp. n. p. 97, *niger* p. 98, var. *bassa* p. 100, aff. *niger* sp. n. p. 102, *lotzi* sp. n. p. 103, aff. *simplicior*, *schindewolfi* sp. n. p. 104, *praelongus* p. 105, aff. *praelongus*, nov. sp. 2 aff. *simplicior* p. 109, Devonian and Carboniferous, PAECKELMANN Abh. preuss. Geol. LdAnst. 136.

†*Buxtonia occidentalis* sp. n. p. 79, *peruviana*, *victorioensis* sp. n. p. 80 Permian Texas, KING Bull. Univ. Texas 3042.—*B. discussed* p. 195, *scabriculus* p. 197, aff. *scabriculus* sp. n. p. 202, sp. nov. p. 203, Carboniferous, PAECKELMANN Abh. preuss. geol. LdAnst. 136.—*B. sp. indet.* p. 113, OZAKI 106.—*Productus (B.) cf. juresanensis* p. 296, GRABAU 58.

†*Chaoella* subgen. n. cf. *Teguliferina* type *C. caucasica* sp. n. p. 161 Permian Caucasus, LICHAREW Ann. Soc. pal. Russe 9.

†*Dictyoclostus* discussed p. 274, cf. *vaughani* p. 275, *semireticulatus* p. 276, *pinguis* p. 278, aff. *pinguis* sp. n., aff. *howratensis* p. 280, *fliegeli* sp. n. p. 281, *scabriculoides* sp. n. p. 283, *antiquatus* p. 285, sp. 1, aff. *antiquatus* p. 287, sp. 2, 3, aff. *antiquatus* sp. 1, aff. *pugilis* p. 288, sp. 2, aff. *pugilis* p. 290, sp. 3, aff. *pugilis* p. 291, sp. 4, aff. *pugilis*, *holzapfeli* sp. n. p. 292, *zimmermanni* sp. n. p. 294, var. *irregularis* var. n. p. 296, ? *flexistrius* p. 297, *sulcatus* p. 298, *multispiniferus* p. 299, *circumspinosus* sp. n. p. 300, *bergicus* sp. n. p. 303, *dienstii* sp. n. p. 305, sp. aff. *insculptus* p. 307, *dathiei* sp. n. p. 307, *muir-woodi* sp. n. p. 309, Carboniferous, PAECKELMANN Abh. preuss. geol. LdAnst. 136.—*D. teres* figured and described, MUIR-WOOD 96 p. 151.

†*Eomarginifera* discussed p. 336, *simplex* sp. n. p. 337, *frechi* sp. n. p. 339, *acuticostatus* sp. n. p. 341, *lobatus* var. *laqueatus*, n. sp. aff. *derbiensis* p. 343, *nasutus* sp. n. p. 344, *sudeticus* sp. n. p. 346, n. sp. a p. 347, sp., sp. 1 p. 348,

sp. 2-5 p. 349, sp. 6-10 p. 350, sp. 11 p. 351 Carboniferous Germany, PAECKELMANN Abh. preuss. geol. LdAnst. 136.

†*Gigantella* discussed p. 231, *giganteus* p. 238, var. *inflata* p. 243, var. *crassa* p. 244, *striato-sulcatus* p. 245, var. *semi-globosa* var. n. p. 246, sp. 1 aff. *striato-sulcatus*, p. 248, sp. 2 aff. *striato-sulcatus*, ? *hemisphaericus* p. 249, *gigantoides* sp. n. p. 250, var. *inflato-umbonata* var. n., var. *aequalicosta* var. n. p. 252, var. *regularis* var. n. p. 254, var. *applanata* var. n. p. 255, sp. 1, 2, aff. *gigantoides* spp. n. p. 256, *striatellus* sp. n. p. 257, *sarytscheffi* sp. n. p. 258, var. *lata* var. n., ? *edelburgensis* p. 260, *latissimus* p. 261, var. *prisca* p. 265, var. *complicata* var. n. p. 267, *bisati* sp. n. p. 269, Carboniferous, PAECKELMANN Abh. preuss. geol. LdAnst. 136.

†*Horridonia texana* sp. n. p. 85, Permian Texas, KING Bull. Univ. Texas 3042.

†*Krotovia* emended p. 76, *spinulosus* p. 79, var. *granulosus* p. 82, *hausdorffianus* sp. n. p. 83, *aculeatus* emend. p. 84, sp. 1, 2, aff. *keyserlingianus* p. 86, *laevipunctatus* p. 87, Carboniferous, PAECKELMANN Abh. preuss. geol. LdAnst. 136.

†*Linoproductus cora* p. 140, cfr. *cora* p. 143, cfr. *cancriniformis* p. 145, *undata* p. 146, sp. indet. p. 147, OZAKI 106.—*L. bioni* sp. n. p. 149, Carboniferous England, MUIR-WOOD Quart. J. Geol. Soc. London 87 1.—*Productus* (*L.*) *lineatus* p. 293, *mammatus* p. 288, GRABAU 58.—*Productus* (*L.*) *cancriniformis* p. 14, *lineatus* p. 16 figured, HERITSCH 66.—*Productus* (*L.*) *simensis* p. 13 figured, REED 118.—*L.* emend. pp. 75, 206, *corrugatus* p. 210, sp. 1, aff. *corrugatus* p. 213, ? *burbachianus* p. 214, ? *continentalis* p. 215, *undatus* p. 217, *conciniformis* sp. n. p. 219, *striatus* p. 220, var. *spinifera* var. n. p. 223, aff. *tenuistriatus* sp. n. p. 224, *rhenanus* sp. n. p. 225, Carboniferous, PAECKELMANN Abh. preuss. geol. LdAnst. 136.—*L. cora* p. 75, *cora angustus* var. n., *girtyi* sp. n., *nasutus* sp. n. p. 76, *waagenianus* p. 77, Permian Texas, KING Bull. Univ. Texas 3042.

†*Linoproductus* (*Cancrinella*) *phosphaticus* p. 77, *villiersi* p. 78 figured, KING 75.

†*Marginifera* cf. *typi*[c]a var. *septentrionalis* p. 25, FREBOLD 45A.—*M. splendens* pl. xiii, xxi, *lasallensis* pl. xx, PLUMMER & MOORE 116.—*M. gisuensis* p. 303, *typica* var. *septentrionalis* p. 306, *gobiensis* p. 308, *morrisi* p. 311, GRABAU 58.—*M. clarkei* figured p. 76, WIRTH 157.—*M. capaci*, *cristobalensis* p. 86, *dugoutensis* sp. n., *lasallensis*, *manzanica*, *opimia* p. 87, *popei*, *popei minor* var. n. p. 88, *reticulata* sp. n., *reticulata angusta* var. n., *sublaevis* sp. n. ? *texana* p. 89, *wabashensis*, ? *whitei* sp. n., ? *wordensis* sp. n. p. 91 Permian Texas, KING Bull. Univ. Texas 3042.

†*Overtonia cristato-tuberculata* p. 82 figured, KING 75.—*Productus* (*O.*) *fimbriatus* p. 173, var. *tessellatiformis* var. n. p. 177, *laciniatus* p. 178, Carboniferous, PAECKELMANN Abh. preuss. geol. LdAnst. 136.

†*Paramarginifera* gen. n. type *Marginifera clarkei* Tschern., FREDERICKS Mém. com. Géol. Leningrad 156 1916 p. 64.

†*Plicatifera* discussed p. 112, *thomasi* sp. n. p. 113, aff. *thomasi* sp. n. p. 114, aff. *spinulosus*, *plicatilis* p. 115, *mesolobus* p. 118, *humerosus* p. 120, var. *longa* var. n. p. 128, var. *plicata* var. n. p. 129 var. *christiani* p. 131 Carboniferous, PAECKELMANN Abh. preuss. geol. LdAnst. 136.

†*Proboscidella* cf. *lata* p. 302, GRABAU 58.—*P. lata* p. 19 figured, HERITSCH 66.—*Productus* (*P.*) cf. *genuinus* p. 16 figured, REED 118.

†*Productella* discussed pp. 51, 56, *goergesi* sp. n. p. 56, sp. 1, aff. *goergesi* sp. n., n. sp. α p. 59, n. sp. β and γ, *kayseri* sp. n. p. 60, n. sp. aff. *kayseri* sp. n. p. 61, *caperata* emend. p. 62, var. *globosa* var. n. p. 66, var. *radiata* var. n. p. 67, *plicatosinuata* sp. n. p. 69, *ultima* sp. n. p. 70, *gallwitzii* sp. n. p. 71, sp. 1, p. 73 Carboniferous Germany, PAECKELMANN Abh. preuss. geol. LdAnst. 136.

†*Productus burbachianus*, *continentalis*, *corrugatus* p. 10, *giganteus*, *hemisphaericus*, *margaritaceus*, *pustulosus*, *semireticulatus*, *undatus* p. 11, PFANNENSTIEL 115.—*P. semicircularis* sp. n. p. 23, *abruptus* sp. n. p. 24, *incurvatus* sp. n. p. 26 Carboniferous U.S.A., SUTTON & WAGNER J. Paleont. Sharon. Mass. 5 1.—*P. pseudohorridus* mut. *pinigaensis* mut. n. p. 26, p. 38, Permian



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*hermosanus* p. 73, *semistriatus*, *wolfcampensis* sp. n. p. 74, sp. Permian Texas, KING Bull. Univ. Texas 3042.—*P. semireticulatus* p. 114, cfr. *semireticulatus* var. *hermosanus*, *inflatus* p. 118, *gruenewaldti* p. 120, *uralicus* p. 123, *taiyuanfuensis* p. 124, cfr., *taiyuanfuensis* p. 125, *manchuricus* p. 126, cfr. *volgensis* p. 127, *intermedius* var. *subplicatilis* p. 128, *tanankouensis* sp. n. p. 129, *houyüensis* sp. n. p. 131, *yentaiensis* sp. n. p. 132, Upper Carboniferous China, OZAKI Bull. Shanghai Inst. Sci. 1 6.

†*Productus* (*Echinoconchus*) *elegans*, *fasciatus* p. 12 figured, HERITSCH 66.—*Productus* (*E.*) *fasciatus* p. 299, GRABAU 58.—*Pustula* (*E.*) *punctatus* p. 99, cfr. *punctatus* p. 102, *elegans* p. 103, OZAKI 106.—*Productus* (*E.*) *punctatus* p. 152, *defensus* p. 157, *pseudooareatus* sp. n. p. 159, *elegans* p. 161, *crameri* sp. n. p. 165, aff. *crameri* sp. n. p. 167, *venustus* p. 168, *subelegans* p. 169, *eximius*, nov. sp. x p. 170 Carboniferous PAECKELMANN Abh. preuss. geol. LdAnst. 136.—*Productus* (*E.*) *fasciatus* var. *cristata* var. n. p. 12 Ur. Carboniferous Afghanistan, REED Palaeont. Ind. Calcutta 19.

†*Productus* (*Krotovia*) *translatus* sp. n. p. 15, Ur. Carboniferous Afghanistan, REED Palaeont. Ind. Calcutta 19.

†*Productus* (*Marginifera*) *longispinus* var. *lobata* p. 133, *typica* p. 135, cfr. *involuta* p. 137, cfr. *carniolicus* p. 138, cfr. *himalayensis* p. 139, OZAKI 106.

†*Productus* (*Overtonia*) cf. *fimbriatus* p. 16, REED 118.

†*Productus* (*Waagenoconcha*) cf. *purdoni* p. 297, *humboldti* p. 298, GRABAU 58.—*Pustula* (*W.?*) *palliata* p. 105, sp. indet. p. 106, OZAKI 106.

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*elegans*, *pustulosiformis* sp. n. p. 59, 127, *carringtoniana* p. 61 Carboniferous Russia, ROTAI Trans. Geol. Prospect. Ser. U.S.S.R. 73.—*P. symmetrica* p. 95, *semipunctata*, *nebrascensis* p. 96, SAYRE 132.

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†*Striatifera pinniformis* p. 78, figured, KING 75.—*Productus* (S.) cf. *ischmensis* p. 290, *compressus* var. *corniformis* var. n. p. 291, GRABAU 58.

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†*Richtofenia sinensis* var. nov. p. 151, OZAKI 106.—*R. lawrenciana* p. 281, GRABAU 58.

†*Tegulifera geniculatum* sp. n. p. 150 Upper Carboniferous China, OZAKI Bull. Shanghai Inst. Sci. 1 6.

†*Teguliferina bösei* sp. n. Permian Texas, KING Bull. Univ. Texas 3042 p. 96.

†*Teguliferina*? (*Chaoella*) see *Chaoella*.

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†*Lyttonia* discussed p. 102, *nobilis americanus* p. 103, *hortoni* sp. n. p. 104 Permian Texas, KING Bull. Univ. Texas, 3042.—*L. nobilis*? sp. p. 286, GRABAU 58 p. 285.—*L. nobilis* SIMIYIA 139 p. 114.

†*Oldhamina* (*Lyttonia*) *mira* sp. n. p. 74, *richthofeni* var. *nobilis* p. 76, var. *ivanovi* var. n. p. 78, FREDERICKS Mém. com. géol. Leningrad 156 1916.

†*Parakeyserlingina* gen. n. type *P. darvasica* (Tschern.), FREDERICKS Mém. Com. Géol. Leningrad 156 1916 pp. 64, 67.—*P.* discussed p. 100, *fredericksi* sp. n. p. 102 Permian Texas, KING Univ. Texas Bull. 3042.

†*Prokeyserlingina* gen. n. nom. nud., FREDERICKS Mém. com. géol. Leningrad 156 1916 p. 64.

†*Pseudokeyserlingina* gen. n. nom. nud., FREDERICKS Mém. com. géol. Leningrad 156 1916 p. 64.

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†*Reflexia* gen. n. type *R. reflexa* sp. n. Carboniferous Russia, ROTAI Trans. Geol. Prosp. Serv. U.S.S.R. 73 pp. 24, 30.

†*Reflexidae* fam. n. for *Reflexia* gen. n. Carboniferous Russia, ROTAI Trans. Geol. Prospect. Ser. U.S.S.R. 73 pp. 24, 31.

†*Rhynchonella* (*Uncinulus*) cf. *princeps* p. 239, *wilsoni* p. 240, GAERTNER 50.—*Rhynchonella* (*U.*) *timorensis, wangenheimi* p. 20 figured, REED 118.

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†*Stenochisma* internal structure figured p. 146, *althi* sp. n. p. 149, Silurian Poland, KOZŁOWSKI Palaeont. polonica 1.—*S.* p. 8, ROTAI 126.

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*Rhynchonella psittacea* figured, internal structure and physiology, HELLER 65 p. 238.

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†*Ambocoeliinae* subfam. n. with *Ambocoelia*, *Ambothyris* gen. n. and *Crurithyris* gen. n. p. 42, GEORGE Quart. J. Geol. Soc. London 87 l.

†Spiriferacea, evolution and development discussed, SCHUCHERT & COOPER 137 p. 250.

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†*Acanthospirina* discussed, PAECKELMANN 108 p. 31.

†*Acrospirifer* gen. n. nom. nud. for *Spirifer primaevus* group, WEDEKIND in SALAMON Grundzüge der Geologie 2 1926 p. 198.—*A.* discussed, PAECKELMANN 108 p. 34.

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†*Ambothyris* gen. n. type *A. infima*, (Whidborne), p. 43 Carboniferous, GEORGE Quart. J. Geol. Soc. London 87 l.—*A.* discussed, PAECKELMANN 108 p. 49.

†*Antispirifer* discussed, PAECKELMANN 108 p. 31.

†*Brachyspirifer* gen. n. nom. nud. type *Spirifer carinatus*, WEDEKIND p. 198 in SALAMON Grundzüge der Geologie 2 1926.—*B.* discussed, PAECKELMANN 108 p. 34.

†*Brachythyridina* discussed, PAECKELMANN 108.—*B. strangwaysi* sinal formula, GRABAU 60 fig. ii.—*B.* discussed p. 24, *strangwaysi* p. 72, OZAKI 106.

†*Brachythyris* discussed, PAECKELMANN 108 p. 37.—*B. panduriformis* p. 317, *panduriformis uralicus*, *panduriformis ufensis*, *panduriformis sokolovi*, *panduriformis supracarbonicus* p. 318, ? *quadratus* p. 319, FREDERICKS 47.—*Spirifer* (*B.*) *minimus* p. 92, ROTAI 125.—*Spirifer* (*B.*) *rhomboidalis*, ROTAI 125 p. 86.

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†*Crispella* subgen. n. of *Spirifer* type *Spirifer crispus* Hisinger, pp. 30, 189, 190, *angustiplicatus* sp. n. p. 192, var. *zalesczykiensis* var. n. p. 194, *laeviplicatus* sp. n. p. 195, *latesinuatus* sp. n. p. 197, *orphanus* sp. n. p. 198, Silurian Poland, KOZŁOWSKI Palaeont. polonica 1.—*C.* discussed, PAECKELMANN 108 p. 29.

†*Crurithyris* gen. n. type *Spirifer urei*, Fleming p. 33, *amoena* sp. n. p. 45, *carbonaria* p. 46, *clannyana* p. 47, *fissa* sp. n. p. 49, *magnispina* sp. n. p. 50, *unguiculus* p. 52, *urei* p. 55, Devonian, Carboniferous Permian British Isles, GEORGE Quart. J. Geol. Soc. London 87 l.—*C.* discussed, PAECKELMANN 108 p. 49.

†*Cyrtella schellwieni*, FREDERICKS p. 313 47.—*C.* discussed, PAECKELMANN 108 p. 43.



†*Cyrtia kulikiana* sp. n. p. 43, var. *moy-radiagae* var. n. p. 45, var. *adzvae* var. n. p. 47, FREDERICKS Mém. com. géol. Leningrad 156 1916.—*C.* diagnosed, PAECKELMANN 108 p. 27.—*Spirifer* (*C.*) *ostiolatus* internal structure figured p. 40, FREDERICKS 46.

†*Cyrtospirifer* discussed, PAECKELMANN 108 p. 42.—*C. tastubensis* p. 312, FREDERICKS 47.

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†*Dienerina* subgen. n. of *Spirifer* p. 25, type *Spirifer tibetanus* p. 70, Upper Carboniferous China, OZAKI Bull. Shanghai Inst. Sci. 1 6.

†*Dzieduszyckia* discussed, PAECKELMANN 108 p. 58.

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†*Eliva lyra* p. 319, *interplicata baschkirica* p. 320, FREDERICKS 47.—*E.* discussed, PAECKELMANN 108 p. 39.

†*Elivella* discussed, PAECKELMANN 46 p. 47.

†*Elivina* discussed, PAECKELMANN 108 p. 39.—*E. tibetana* p. 315, FREDERICKS 47.—*Spirifer* (*E.*) discussed p. 117, *sulcifer* p. 118 figured, KING 75.

†*Ella* discussed, PAECKELMANN 108 p. 40.

†*Elytha* discussed, PAECKELMANN 108 p. 45.

†*Emanuella* discussed, PAECKELMANN 108 p. 45.

†*Endoxina* discussed, PAECKELMANN 108 p. 38.

†*Eoreticularia* discussed, PAECKELMANN 108 p. 44.

†*Eospirifer* diagnosed, PAECKELMANN 108 p. 26.

†*Euryspirifer* gen. n. nom. nud. type *Spirifer paradoxus*, WEDEKIND in SALAMON, W. Grundzüge der Geologie 2 1926 p. 202.—*E.* discussed, PAECKELMANN 108 p. 34.

†*Fredericksia* nom. nov. for *Munia* Fredericks 1918 non Hodge 1836, type *Mentzelia simensis* Tschern. Permian Russia, PAECKELMANN N. Jahrb. geol. Paläont. Stuttgart 67 B p. 48.

†*Fusella* discussed, PAECKELMANN 108 p. 37.

†*Gülichella* discussed, PAECKELMANN 108 p. 45.

†*Hysteroites* discussed, PAECKELMANN 108 p. 33.

†*Indospirifer poudaukpinensis* var. *maoerhchuanensis* sinal formula, GRABAU 60 pl. i.

†*Martinia* discussed, PAECKELMANN 108 p. 46.—*M. rhomboidalis* figured p. 120, *wolfcampensis* sp. n. p. 121 Permian Texas, KING Univ. Texas Bull. 3042.—*M.* cf. *triquetra* p. 36, *triquetra* figured p. 37, FIEBOLD 45A.—*M. glabra*, PFANNENSTIEL 115 p. 12.—*M. semiplana* p. 30, cf. *glabra* p. 31, figured, HERITSCH 66.—*M. osborni* sp. n. p. 176, *mongolica* sp. n. p. 180, *orbicularis* p. 183, *sinensis* sp. n. p. 187, *rectangularis* sp. n. p. 189, cf. *distefanoi* p. 191, var. *spissa* var. n. p. 193, *distorta* sp. n. p. 195, *rhomboidalis* sp. n. p. 197, Permian Mongolia, GRABAU Nat. Hist. Central Asia, New York 4.—*M. glabra*, ROTAI 125 p. 92.—*M.* discussed p. 26, *glabra* var. *yunnanensis* p. 78, cfr. *glabra* p. 79, cfr. *manchuriensis* p. 80, cfr. *semiplana* p. 81, cfr. *corculum* p. 83, sp. indet. p. 84, OZAKI 106.—*M. corculum* p. 74 figured, WIRTH 157.—*M.* cf. *triquetra* p. 23 figured, REED 118.

†*Martiniopsis* aff. *convexa* p. 24 figured, REID 118.—*M.* discussed p. 26, ? *baschkirica* p. 84, ? *orientalis* p. 86, OZAKI 106.—*M.* discussed, PAECKELMANN 108 p. 47.—*Spirifer* (*M.*) *implex* sp. n. pp. 90, 135, Carboniferous Russia, ROTAI Trans. Geol. Prospect. Ser. U.S.S.R. 73.

†*Mentzelia* discussed, PAECKELMANN 108 p. 48.

†*Mentzeliopsis spinosa* pp. 34, 41, WILCKENS 155.—*M.* discussed, PAECKELMANN 108 p. 48.

†*Metaplasia* discussed, PAECKELMANN 108 p. 50.

†*Mouminá* discussed, FREDERICKS 46 p. 47.

†*Munella* diagnosed p. 24, *nikitini* p. 57, var. *tschernyschewi* var. n. p. 59, cfr. *nikitini* p. 60, aff. *hustedaeformis* p. 61, *yavorski* p. 63, *nikitini* sp. n. p. 64, *tschernyschewiformis* sp. n. p. 66, Upper Carboniferous China, OZAKI Bull. Shanghai Sci. Inst. 1 6.—*M. nikitini*, *fritschii* p. 314, FREDERICKS 47.—*M.* discussed, PAECKELMANN 108 p. 39.

†*Munia simensis*, FREDERICKS 47 p. 299.

†*Neomunella* subgen. n. of *Spirifer* p. 24 type *N. chaoi* sp. n. p. 68, sp. indet. p. 70 Upper Carboniferous China, OZAKI Bull. Shanghai Inst. Sci. 16.

†*Neospirifer* diagnosed p. 24, *fasciger* p. 28, OZAKI 106.—*N. striatus* mut. *fasciger* p. 311, FREDERICKS 47.—*N.* discussed PAECKELMANN 108 p. 38.—*Spirifer* (*N.*) discussed, *bakeri* sp. n., *costella* sp. n. p. 115, *mexicanus latus* var. n., *pseudo-cameratus*, *huocoensis* sp. n. p. 116, *triplicatus*, *texanus* p. 117 Permian Texas, KING Univ. Texas Bull. 3042.

†*Paraspirifer* gen. n. nom. nud. type *Spirifer cultrigugatus*, WEDEKIND in SALAMON, W. Grundzüge der Geologie 2 1926.—*P.* discussed, PAECKELMANN 108 p. 34.

†*Paulonia* discussed, PAECKELMANN 108 p. 38.—*Spirifer* (*P.*) *medius* p. 85, ROTAI 125.—*Spirifer* (*P.*) *ranovensis* p. 301, NALIVKIN 97.

†*Platyrachella* discussed, PAECKELMANN 108 p. 42.

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†*Plectospirifer heimi* sinal formula, GRABAU 60 pl. i.

†*Prosserella* discussed, PAECKELMANN 108 p. 43.—*Reticularia* (*P.*) *modestoides* figured, MONAHAN 94 p. 389.

†*Prosyringothyris* gen. n. type *P. northi* sp. n. (= *Syringothyris* aff. *carteri* North) Carboniferous, FREDERICKS Mém. com. géol. Leningrad 156 1916 p. 51.—*P.* discussed, PAECKELMANN 108 p. 56.

†*Pseudomartinia* discussed, PAECKELMANN 108 p. 47.

†*Pseudosyringothyris* gen. n. type *P. Karpinskii* sp. n., FREDERICKS Mém. com. géol. Leningrad 156 1916 p. 51.—*P.* discussed, PAECKELMANN 108 p. 55.

†*Pseudosyrinx* discussed, PAECKELMANN 108 p. 55.

†*Quadrifarius* discussed, PAECKELMANN 108 p. 31.

†*Reticularia lineata*, PFANNENSTIEL 115 p. 12.—*R.* discussed, PAECKELMANN 108 p. 43.—*R. bescheviana* sp. n. pp. 86, 133, Carboniferous Russia, ROTAI Trans. Geol. Prospect. Ser. U.S.S.R. 73.

—*R. gasimurensis* sp. n. p. 36, Palaeozoic Siberia, FREDERICKS Mém. com. géol. Leningrad 156 1916.

†*Reticulariopsis* gen. n. species, *Reticularia elliptica* Phill. *R. fimbriatus* Conrad, *R. dereimsi* Oehlert, FREDERICKS Mém. Com. géol. Leningrad 156 1916 p. 17.—*R.* discussed, PAECKELMANN 108 p. 45.

†*Schizospirifer latistriatus* sinal formula, GRABAU 60 pl. i.

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†*Spinocyrtia* gen. n. species *S. granulosa* (Conrad), *S. arrecta* (Hall), FREDERICKS Mém. Com. géol. Leningrad 156 1916 p. 18.—*S.* discussed, PAECKELMANN 108 p. 34.

†*Spirelytha* discussed, PAECKELMANN 108 p. 44.

†*Spirifer subcuspidatus*, *muralis*, *disjunctus* figured, BEKKER 10 p. 54.—*S. bisulcatus*, var. *semicircularis*, *ovalis* var. *hemisphaericus*, cf. *grandicostatus* p. 11, *pinguis*, *subcinctus*, *subrotundatus*, *zitteli* p. 12, PFANNENSTIEL 115.—*S. subtiro*, *tiro*, p. 244, *viator* p. 245, GAERTNER 50.—*S. robustus* var. *adunca*, sp. p. 382, EICHENBERG 37.—*S. parvus* sp. n. p. 29 Carboniferous U.S.A., SUTTON & WAGNER J. Paleont. Sharon Mass. 5 1.—*S.* discussed, *condor* p. 113, *marcoui infraplica* var. n. p. 114, Permian Texas, KING Univ. Texas Bull. 3042.—*S. voengaensis* sp. n. pp. 18, 36, *vagaensis* sp. n. pp. 23, 37, *dvinaensis* sp. n. pp. 25, 37, Permian Russia, LICHAREW Trans. geol. Prospect. Ser. U.S.S.R. 71.—*S.* discussed, PAECKELMANN 108 pp. 28, 35.—*S. striatus* mut. *neostriatus* mut. n. p. 308, mut. *condor*, mut. *ravana*, mut. *marcoui* p. 309 mut. *cameratus* p. 310 Ur. Carboniferous Ural Mts., FREDERICKS Bul. com. géol. Leningrad 38 1924.—*S.* diagnosed p. 24, cfr. *bistrizae* p. 26, ? sp. indet. p. 27, OZAKI 106.—*S.* n. sp., *rockymontanus*, pl. vi, *cameratus* pls. xiii, xxv, *texanus*, sp. pl. xxi, PLUMMER & MOORE 116.—*S. mosakheilensis* sinal formula, GRABAU 60 pl. ii.—*S. aperturatus* var. *latestriata*, *neptunicus*, *steinmanni* p. 587, *mediotextus* p. 588, RITZ 122.—*S. fasciger* p. 22, *cameratus* p. 24, *fritschii* p. 25,

*lyra*, *trigonalis* var. *lata*, var. *bisulcata* p. 27, *carnicus* p. 28, *zitteli*, sp. p. 29, sp. p. 30 figured, HERITSCH 66.—*S.* cf. *ravana* pp. 15, 33, 39, cf. *marcoui* figured, aff. *cameratus* p. 16, *ravana* p. 26, *cameratus* pp. 27, 39, 41, *rectangulus* p. 27, *interplicatus* var. *baschkirica* p. 27, FIEBOLD 45a.—*S. supra-disjunctus* sp. n., *anosofi* var. *major*, var. *minor* vars. n., *tenticulum* var. *curvae*, var. *recta* vars. n. Devonian Russia, OBRUTSCHEW Mém. Soc. Amis Sci. Nat. Moscou sect. géol. 5 (non vidi).—*S. subcuspidatus* BEKKER 10 p. 54.—*S. sophiae* p. 117, *hassaki* p. 118, sp. p. 119, METZ 92.—*S. subcuspidatus*, *muralis*, *disjunctus*, BEKKER 10 p. 30.—*S. triplicatus* p. 99, SAYRE 132.—*S. moosakhailensis* p. 168, GRABAU 58.—*S.* cf. *alatus*, FIEBOLD 45b p. 9.—*S. varians* gens., subgens. p. 142, *variens* sp. n. p. 143, *variens flexuosus* subsp. n. p. 146, *variens flexilis*, *variens granulistriatus* p. 147, *variens ? fallax* subsp. n. p. 148, *approximatus* sp. n. p. 148, *approximatus crebescens* p. 150, *approximatus nodosus*, *approximatus subradiatus*, *approximatus erraticus* subsp. n. p. 152, *orestes* p. 152, *angulosus*, *angulosus fissus* subsp. n. p. 153, *granilineatus* subgens., *suborestes* p. 154, *granilineatus* sp. n. p. 156, *granilineatus procerus* subsp. n. p. 159, *inconsuetus* subgens., *inconsuetus* sp. n. p. 159, *inconsuetus plagosus* subsp. n. p. 161, *inconsuetus extans*, *inconsuetus fraternus* p. 162, *inconsuetus pandus* subsp. n. p. 163, *major* subgens., *major* sp. n. p. 163, *major tumidulus* p. 167, *major pressulus*, *major tristriatus*, *major vadosus* p. 168, *major fractus* subsp. n. p. 169, *acutilineatus* gens., *acutilineatus* sp. n. p. 169, *acutilineatus exorbitatus*, *acutilineatus angustatus* p. 172, subsp. n., *latidorsatus* sp. n. p. 174, *latidorsatus fissilis* subsp. n., *angularis* sp. n. p. 176, *euginus* subgens. p. 181, *euginus* sp. n. p. 182, *euginus minutissimus* subsp. n. p. 187, *euginus genitivus*, *euginus flexilistriatus* p. 188, *euginus instabilis* p. 189, *euginus venulosus* p. 191, *euginus divergens* p. 192, *euginus onustus* p. 193, *euginus fractostriatus*, *euginus varicostatus*, *euginus radiostriatus* p. 194, *euginus devevus*, *euginus geniculosus* p. 195, *euginus pustulatus*, *euginus pervetus* p. 196, *euginus intextus*, *euginus erosus* p. 197, *euginus hispidus*, *euginus nodostriatus*, p. 198, *euginus pannaeus* p. 199, *euginus sentosus*, *euginus racemosus* p. 200, *euginus*

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†*Spiriferina* (*Spiriferella*) cfr. *saranae* p. 177, OZAKI 106.

†*Squamularia* discussed p. 25, *perplexa* p. 74, *asiatica* p. 76, *reticulariformis* sp. n. p. 77, Upper Carboni-

ferous China, OZAKI Bull. Shanghai Inst. Sci. 1 6.—*S. asiatica* var. p. 25, cf. *rostrata*, cf. *dieneri*, cf. *pulcherrima* p. 26 all figured, REED 118.—*S. perplexa* pls. vii, xiii, xxi, PLUMMER & MOORE 116.—*S. perplexa*, SAYRE 132 p. 100.—*S. elegantuloides* sp. n. p. 198, *indica* p. 200, *waageni* p. 204 Permian Mongolia, GRABAU Nat. Hist. Central Asia, New York 4.—*S. areata* sp. n. pp. 88, 134, *striata* sp. n. pp. 89, 134, *lineata* p. 89, Carboniferous Russia, ROTAI Trans. geol. Prospect. Ser. U.S.S.R. 73.—*S. guadalupensis* figured p. 118, *perplexa* p. 119, KING 75.—*S. rostrata*, *rostrata pulcherrima* p. 324, FREDERICKS 47.—*S.* discussed, PAECKELMANN 108 p. 44.

†*Squamulariina* discussed, PAECKELMANN 108 p. 53.

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## (b) BRYOZOA

BY

ANNA B. HASTINGS, M.A., PH.D.

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†*Terebellaria tenuis* d'Orb., **CANU 8**  
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†? *Amplexopora spinulifera* sp. n. Devonian Ontario, FRITZ Trans. Canad. Inst. 17 p. 224.

†*Geinitzella columnaris* var. *tuberosa-sparsigemmata* var. n. Permian Asia, GRABAU Nat. Hist. Centr. Asia 4 p. 46.  
—*G. crassa*, HERITSCH 21 p. 7.

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†*Monotrypella maorica* sp. n. Trias New Zealand, WILCKENS Paleont. Bull. N.Z. 12 p. 19.

†*Monticulipora inaequalis, incrustans* d'Orb., CANU 9 pp. 152, 153, 8 pl. xxx figs. 7-13.

†*Tabulipora heteropora*, SAYRE 37.

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†*Fenestella mimica* var. *latirama* var. n. *F. moorei* sp. n. Pennsylvanian Kansas, SAYRE Kansas Univ. Sci. Bull. 19 pp. 88, 89.—*F. sasakwaensis* sp. n. Pennsylvanian Oklahoma, WARTHIN Bull. Okla. Geol. Surv. 53 p. 36.

†*Heteroprisca*, NEKHOROSHEV Cbl. Min. Geol. Paläont. Stuttgart B 11 1929 p. 578. [Omitted from Z.R. LXVI.]

†*Pinnatopora oculata, bellula, pustulosa*, WARTHIN 43 p. 38.

†*Polypora submarginata, hexagona*, WARTHIN 43 pp. 36-37.—*P. submarginata* var. *nodosa* var. n. *P. elliptica*, Pennsylvanian Texas, SAYRE Kansas Univ. Sci. Bull. 19 pp. 88, 89.

†*Prismopora lobata* sp. n. Pennsylvanian Oklahoma, WARTHIN Bull. Okla. Geol. Surv. 53 p. 43.

†*Rhabdomeson magnum* sp. n. p. 40, *R. procerum, bellum* var. *minus, filum* p. 41, Pennsylvanian Oklahoma, WARTHIN Bull. Okla. Geol. Surv. 53.—*R. kansasense* sp. n. Pennsylvanian Kansas, SAYRE Kansas Univ. Sci. Bull. 19 p. 91.

†*Rhombocladia delicata*, WARTHIN 43 p. 42.—*R. sp.*, HERITSCH 21 p. 6.

†*Rhombopora lepidodendroides*, SAYRE 37 p. 92.—*R. pilula, constans*, WARTHIN 43 p. 40.

†*Septopora biserialis*, SAYRE 37 p. 91.—*S. ? elliptica* sp. n., *blanda*, Pennsylvanian Oklahoma, WARTHIN Bull. Okla. Geol. Surv. 53 p. 39.

†*Streblotrypa multipora* sp. n. Pennsylvanian Oklahoma, WARTHIN Bull. Okla. Geol. Surv. 53 p. 42.

†*Thamniscus tenuiramus*, WARTHIN 43 p. 37.

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*Adeona costata* sp. n. Recent S. Africa, O'DONOGHUE Rep. Fish. Mar. Biol. Surv. Pretoria 3 p. 51.

*Adeonella expansa, ligulata, ponticula coralliformis* spp. n. Recent S. Africa. O'DONOGHUE Rep. Fish. Mar. Biol. Surv. Pretoria 3 pp. 52-55.

†*Balantiostoma pusillum, vesperugo*, VOIGT Leopoldina, Halle 6 1930 p. 532. [Wrongly given under *Cryptostoma* in Z.R. LXVII.]

*Bicellaria capensis* sp. n. Recent S. Africa, O'DONOGHUE Rep. Fish. Mar. Biol. Surv. Pretoria 3 p. 32.

*Bugula levinseni* nom. n. for *B. murrayana* var. *B. Levinsen*, *B. fastigiata* var. *pallida* var. n. Recent Siberia, KLUGE Trav. Sta. biol. Murman 3 pp. 6, 7.

*Catenicula* gen. n. (Catenicellidae) genotype *C. corbulifera* sp. n. Recent S. Africa, O'DONOGHUE Rep. Fish. Mar. Biol. Surv. Pretoria 3 p. 27.

\* *Cellepora nordenskjoldi* sp. n. Recent Siberia, KLUGE Trav. Sta. biol. Murman 3 p. 22.

†*Cellepora parasitica, minuta, maculata*, LECOINTRE 26.

*Cellularia infantae* sp. n. Recent S. Africa, O'DONOGHUE Rep. Fish. Mar. Biol. Surv. Pretoria 3 p. 30.

*Chorizopora brongniarti, ancestrula*, BARROSO 1 p. 72.

*Cupularia robertsoni* nom. n. for *C. umbellata* Robertson, CANU & BASSLER Bull. U.S. Nat. Mus. 100 9 1929 p. 142. [Omitted from Z.R. LXVI.]

*Electra verticellata* var. *curvispina* var. n. Recent S. Africa, O'DONOGHUE Rep. Fish. Mar. Biol. Surv. Pretoria 3 p. 35.

*Flustra laciniosa* sp. n. for *F. papyracea* var. *laciniosa* Calvet, Recent Mediterranean, BARROSO Soc. esp. Hist. nat. 50th anniv. p. 69.—*F. nordenskjoldi* sp. n. Recent Siberia, KLUGE Trav. Sta. biol. Murman 3 p. 8.

*Gemellaria loricata* var. *arctica* var. n. Recent Siberia, KLUGE Trav. Sta. biol. Murman 3 p. 3.

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†*Latescharchantonensis*, *cuckmerensis*, *proboscidea*, *ovigera*, *saltans* spp. n. Cretaceous England, BRYDENE Notes Chalk Polyzoa 1930 pp. 50–51.

*Lekythopora robusta* sp. n. Recent Valencia, BARROSO Soc. esp. Hist. nat. 50th anniv. p. 76.

*Lepralia triangularis*, *clithridiata* spp. n. Recent S. Africa, O'DONOGHUE Rep. Fish. Mar. Biol. Surv. Pretoria 3 p. 43, 44.

*Membranipora crustulenta* vars. *arctica*, *baltica*, *stammeri* varr. n. Recent N. Europe, p. 27. *M. crustulenta* vars. *fossaria*, *spiculata* p. 27. *M. catenularia* p. 15, BORG Ark. Zool. Stockholm 22a 4.—*M. galeata* var. *inermis* var. n. Recent S. Africa, O'DONOGHUE Rep. Fish. Mar. Biol. Surv. Pretoria 3 p. 38.

†*Membranipora pinguescens* sp. n. for *M. woodwardi* var. *pinguescens*, BRYDENE New or Imp. Known Chalk Polyzoa, Dulau 1929 p. 27 [omitted from Z.R. LXVII].—*M. devonica*, *insultans*, *taverensis* spp. n. *cubitalis* var. *bicavata* var. n. Cretaceous England, BRYDENE Notes Chalk Polyzoa 1930 p. 39.—*M. sparsispina* sp. n. Cretaceous Denmark, VOGT Leopoldina Halle 6 1930 p. 432 [omitted from Z.R. LXVII].

*Mucronella dijmphnae* sp. n. Recent Siberia, KLUGE Trav. Sta. biol. Murman 3 p. 11.—*M. anatirostris* and var. *spinifera* sp. & var. n., *M. serratilabris* sp. n. Recent S. Africa, O'DONOGHUE Rep. Fish. Mar. Biol. Surv. Pretoria 3 p. 47, 48.

*Myrizoum orientale* sp. n. Recent Siberia, KLUGE Trav. Sta. biol. Murman 3 p. 20.

†*Onychocella disparilis* vars. *hellotis*, *helvia* varr. n. *O. substrumulosa*, *heraclea*, *herennia*, *hercyna*, *altonensis*,

*hersilia*, *hermione* spp. n. *O. hermione* var. *protendens* var. n. *O. hesione*, *hestia*, *O. mimosa* spp. n. *O. rimosa* var. *super-rimosa* var. n. *O. miscens*, *gradua* spp. n. Cretaceous England, BRYDENE Notes Chalk Polyzoa 1930 pp. 45–47, 49–50.

*Petraliella albirostris* sp. n. Recent Hawaii, CANU & BASSLER Bull. Soc. Sci. Seine-et-Oise II 8 7 suppl. 1927 p. 22 [omitted from Z.R. LXV].—*P. armata*, CANU & BASSLER Bull. U.S. Nat. Mus. 100 9 1929 p. 260 [given as *Petralia armata* in Z.R. LXVII].

*Porella saccata* var. *beringi* var. n. Recent Siberia, KLUGE Trav. Sta. biol. Murman 3 p. 14.—*P. capensis* sp. n. Recent S. Africa, O'DONOGHUE Rep. Fish. Mar. Biol. Surv. Pretoria 3 p. 45.

†*Porina goldfussi*, *levinseni* spp. n. *goldfussi* var. *meudonensis* var. n. *hipparchia*, *portuosa*, *afionensis*, *francorum*, *craterica*, *hippolyte*, *diversa*, *hortensia*, *historis*, *horatia*, *vesicosa*, *hostilia*, *canui*, *acutimargo* spp. n. *acutimargo* var. *laminata*, *angustata* vars. *protecta*, *inermis*, *simplicior*, *simplificissima* varr. n. *sussexiensis*, *allantica*, *socia*, *tenuimuralis*, *subvalligera*, *scoriacea*, *nodensis*, *secreta* spp. n. *secreta* var. *ovingensis* var. n. *lapidosa*, *maculata*, *lata*, *subfragilis*, *impedens*, *offa*, *subarticulata* spp. n. Cretaceous England and France, BRYDENE Notes Chalk Polyzoa 1930 pp. 53–60.

*Pseudoflustra birulai* sp. n. Recent Siberia, KLUGE Trav. Sta. biol. Murman 3 p. 16.

*Retepora gilchristi* sp. n. Recent S. Africa, O'DONOGHUE Rep. Fish. Mar. Biol. Surv. Pretoria 3 p. 49.

†*Rhagasostoma inelegans* vars. *incarcerata*, *testudinaria* varr. n. *R. subgibbosum* sp. n. *R. gibbosum* var. *weybournensis* var. n. *R. sheringense*, *trimense*, *trulla* spp. n. Cretaceous England, BRYDENE Notes Chalk Polyzoa 1930 pp. 48–49.

*Rhamphostomella bilaminata* var. *sibirica* var. n. Recent Siberia, KLUGE Trav. Sta. biol. Murman 3 p. 21.

†*Rotiporina culveriana*, *altonensis* spp. n. *altonensis* var. *sublaevis* var. n. *roborata*, *decorata*, *subangulata*, *antrifera*, *shidensis*, *trimensis*, Cretaceous England, BRYDENE Notes Chalk Polyzoa 1930 pp. 52–53.

*Schizoporella unicornis, sanguinea*, BARROSO 1 p. 73.—*S. incerta, pachystega* spp. n. Recent Siberia, KLUGE Trav. Sta. biol. Murman 3 pp. 17, 18.

*Scrupocellaria sibirica* sp. n. Recent Siberia, KLUGE Trav. Sta. biol. Murman 3 p. 4.

*Semibugula* gen. n. (between Cellulariidae and Bicellariidae), *S. birulai* sp. n. Recent Siberia, KLUGE Trav. Sta. biol. Murman 3 p. 5.

*Smittia hexagonalis* sp. n. Recent S. Africa, O'DONOGHUE Rep. Fish. Mar. Biol. Surv. Pretoria 3 p. 46.

†*Systemostoma asperulum* vars. *praecox, parisiensis* varr. n. Cretaceous England and France, BRYDONE 1930 p. 60.

†*Terebripora antiqua* d'Orb., CANU 8 p. 98.

†*Vincularia glycera* sp. n. *V. glycera* vars. *gorgo, gracilla* varr. n. *V. vertebralis, weybournensis* spp. n. *V. weybournensis* var. *sussexiensis* var. n. *V. anguina, henstingensis, candyana, glaphyra glauca, praecursor, grania, inconspicua, tegminula, tegmen, gygaea, harmonia, supercilium, allas, brightonensis, hecuba, hecate, hecamede, lesueurina, caveina, hedyle, helena, hegemone,*

*helice* spp. n. *V. foricula* nom. n. for *V. exsculpta* Bryd. non Marss. Cretaceous England and France, BRYDONE Notes Chalk Polyzoa 1930 pp. 40-45.

*Watersipora cucullata*, BARROSO 1 p. 75.

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BY

A. E. SALISBURY.

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N.B.—FULL REFERENCES ARE GIVEN ONLY IN THE CASE OF A NEW GENUS OR SPECIES. IN OTHER CASES THE NUMERAL IN "Large bold Clarendon" REFERS TO THE LIST OF TITLES WHERE THE FULL REFERENCE WILL BE FOUND. IN THE CASE WHERE A REFERENCE IS GIVEN IN THE SYSTEMATIC PART, THE VOLUME NUMBER IS PRINTED IN "Smaller Clarendon."

Note.—The following arrangement is based on Pelseneer.

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*Acanthochiton turtoni tenuigranulosus* var. n. S. Africa, ASHBY Ann. S. Afr. Mus. 30 p. 10 pl. ii f. 13.—*A. joullesi farnoti adansonii*, figs., heterochaetus sp. n. Canaries, BERGENHAYN Arkiv. Zool. 23 A 13 p. 20 figs.—*A. dissimilis* sp. n. Japan, TAKI Venus 2 p. 215 pl. vii.

*Acanthochiton* group nom. n. (*Acanthochiton* Gray), BERGENHAYN K. svenska VetenskAkad. Handl. (3) 9 p. 34.

*Acanthochitonina* subord., BERGENHAYN 77 p. 47.

*Acanthopleuratypus* group nom. n. (*Acanthopleura* Guilding), BERGENHAYN K. svenska VetenskAkad. Handl. (3) 9 p. 31.

*Amiculatypus* group nom. n. (*Amicula* Gray), BERGENHAYN K. svenska VetenskAkad. Handl. (3) 9 p. 21.

*Callistochiton mawlei*, ASHBY 27.

*Callistochiton* group nom. n. (*Callistochiton* Cpr.), BERGENHAYN K. svenska VetenskAkad. Handl. (3) 9 p. 19.

*Callochiton doriae* fig., BERGENHAYN 75.

*Callochiton* group nom. n. (*Callochiton* Gray) *Eudoxochiton* Gray, BERGENHAYN K. svenska VetenskAkad. Handl. (3) 9 p. 19.

*Chiton canariensis* fig., BERGENHAYN 75.—*Chiton* nervous system, BINARD & JEENER 92.—*C. polii*, *tuberculatus*, HOFFMANN 393.—*C. barnardi* sp. n. S. Africa, ASHBY Ann. S. Afr. Mus. 30 p. 46 pl. vi, f. 74–76, pl. vii, f. 77.—*C. spinosetatus* sp. n. Viti Leva, BERGENHAYN Göteborgs Vet. Samh. Handl. (5) B 1 12 p. 24 Taf. 1 f. 17–28 T. 2, f. 29–31.

*Chitons*, S. Africa, ASHBY 29.

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*Chondropleuratypus* group nom. n. (*Chondropleura* Thiele), BERGENHAYN K. svenska VetenskAkad. Handl. (3) 9 p. 19.

*Choneplax indica*, *latus*, BERGENHAYN 74.

*Choneplax* group nom. n. (*Choneplax* Cpr.), BERGENHAYN K. svenska VetenskAkad. Handl. (3) 9 p. 37.

*Choriplax* group nom. n. (*Choriplax* Ad. & Ang.), BERGENHAYN K. svenska VetenskAkad. Handl. (3) 9 p. 16.

*Craspedochiton joveauxensis oliveri*, IREDALE & HULL 402.

*Cryptoconchustypus* group nom. n. (*Cryptoconchus* Blainv. & Guild.), BERGENHAYN K. svenska VetenskAkad. Handl. (3) 9 p. 36.

*Cryptoplax dupuisi* sp. n. S. Africa, ASHBY Ann. S. Afr. Mus. 30 p. 13 pl. ii, f. 14, 15.—*C. royana*, IREDALE & HULL 402.—*C. jugosus* sp. n. Marshall Id., BERGENHAYN Göteborgs Vet. Samh. Handl. (5) B 1 12 p. 17 Taf. 1, f. 1–16.

*Cryptoplax* group nom. n. (*Cryptoplax* Blainv.), BERGENHAYN K. svenska VetenskAkad. Handl. (3) 9 p. 37.

*Dinoplax* group nom. n. (*Dinoplax* Gmel.), BERGENHAYN K. svenska VetenskAkad. Handl. (3) 9 p. 25.

*Enoplochiton* group nom. n. (*Enoplochiton* Gray), BERGENHAYN K. svenska VetenskAkad. Handl. (3) 9 p. 32.

*Endoplax inornata*, ASHBY 27.

*Eudoxochiton nobilis*, ASHBY 27.

*Hanleyatypus* group nom. n. (*Hanleya* Gray), BERGENHAYN K. svenska VetenskAkad. Handl. (3) 9 p. 15.

*Hemiarthrum* group nom. n. (*Hemiarthrum* Cpr.), BERGENHAYN K. svenska VetenskAkad. Handl. (3) 9 p. 16.

*Ischnochiton oniscus alfredensis* sub-sp. n. *I. hewitti* sp. n. S. Africa, ASHBY Ann. S. Afr. Mus. 30 p. 31 pl. v, f. 54. & p. 33 pl. v, f. 50–53.—*I. (Radiella) delagoensis* sp. n. S. Africa, ASHBY Ann. S. Afr. Mus. 30 p. 40 pl. vi, f. 63–66.—*I. rissoi* fig., *strömfelti* sp. n. Canaries, BERGENHAYN Arkiv Zool. 23A 13 p. 11 figs.—*I. (Lepidozona) californiensis* n. sp.; nom. n. for *I. pectinatus* Cpr. non Adams = *I. clathratus* Pils pars, BERRY Pr. Malac. Soc. 19 p. 255 figs.—*I. (Stenoplax) venustus* sp. n. Japan, TAKI Venus 2 p. 178 figs.—*I. magdalenensis*, HOFFMANN 393.

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*Ischnochiton* group nom. n. (*Ischnochiton*, *Tonicella*, *Trachydermon*, *Haploplax* u. a.), BERGENHAYN K. svenska VetenskAkad. Handl. (3) 9 p. 18.

*Katharinatypus* group nom. n. (*Katharina* Gray), BERGENHAYN K. svenska VetenskAkad. Handl. (3) 9 p. 21.

*Lepidopleurus mathewsianus*, ASHBY 27.—*L. scabridus, cajetanus, granoteratus* figs., *odhneri* sp. n. Canaries, BERGENHAYN Arkiv. Zool. 23 A 13 p. 6 figs.—*L. cancellatus*, LÖNNBERG 519.

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*Liolophuratus* group nom. n. (*Liolophura* Pils.), BERGENHAYN K. svenska VetenskAkad. Handl. (3) 9 p. 32.

*Loboplax tridacna*, HULL & RISBEC 395.

*Loricatypus* group nom. n. (*Lorica* H. & A. Adams), BERGENHAYN K. svenska VetenskAkad. Handl. (3) 9 p. 25.

*Middendorffia piceola*, fig., BERGENHAYN 75.

*Mopaliatypus* group nom. n. (*Mopalia* Gray), BERGENHAYN K. svenska VetenskAkad. Handl. (3) 9 p. 20.

*Notoplax facilis* sp. n. New Zealand, S. Id. p. 68 pl. iii, f. 13.—*N. brookesi fortior* var. n. New Zealand, IREDALE & HULL Aust. Zool. 7 p. 66 pl. iii, f. 33.

*Onithochiton* group nom. n. (*Onithochiton* Gray), BERGENHAYN K. svenska VetenskAkad. Handl. (3) 9 p. 31.

*Parachiton lifuensis* sp. n. New Caledonia, HULL & RISBEC Aust. Zool. Sydney 6 1931 p. 373 pl. xxxi, ff. 1-7.

*Placiphorellatypus* group nom. n., BERGENHAYN K. svenska VetenskAkad. Handl. (3) 9 p. 20.

*Proneomenia gerlachii*, ROBSON 739.

*Rhyssoplax tricornis* sp. n. Gilbert Id., BERGENHAYN Göteborgs Vet. Samh. Handl. (5) B 1 12 p. 28 Taf. 2, f. 32-36.

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*Schizochiton* group nom. n. (*Schizochiton* Gray), BERGENHAYN K. svenska VetenskAkad. Handl. (3) 9 p. 27.

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*Tonicella marmorea*, BERGENHAYN 77.

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*Toniciatypus* group nom. n. (*Tonicia* Gray), BERGENHAYN K. svenska VetenskAkad. Handl. (3) 9 p. 30.

Tonicinae subfam., BERGENHAYN 77.

*Trachydermon canariensis*, fig., BERGENHAYN 75.—*T. cinereus*, HOFFMANN 393.

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*Acmaea dorsuosa* ecology, ABE 1.—*A. funiculata* (Carpenter), *A. mitra* Eschscholtz, HANNA & SMITH 355.—*A. virginea*, LÖNNBERG 519.

†*Acmaea hannonica* sp. n. *ciplensis* em = *ciplanus* Ryckholt Tuffeau Belgium, VINCENT Mem. Mus. N.H. Belg. 46 pp. 11, 12 text-figs.

†*Hypseloconus ozarkensis, compressus* spp. n. Ordovician U.S.A., ULRICH & BRIDGE Missouri Bureau Geol. & Mines 24 p. 187 pl. xx, ff. 20-26.

*Patella sinuosa*, LAMY 495.—*P. MOORE* 574.—*P. caerulea*, TUZET 892.—*P. caliculus* sp. n. Panama, LI Bull. Geol. Soc. China 9 3 p. 265 pl. 6, f. 41.

†*Patella calix* sp. n. Miocene Panama, LI Bull. Geol. Soc. China 9 3 p. 264 pl. v, f. 40.

†*Tectisumen compunctum* sp. n. Oligocene N.Z., MARWICK Palaeont. Bull. N.Z. 18, 1931, p. 85 figs.

RHIPIDOGLOSSA.

## PLEUROTOMARIIDAE, BELLEROPHONTIDAE, HALIOTIDAE, FISSURELLIDAE.

*Baylea leveilli*, WIRTH 956.

†*Bellerophon squamatus mongoliensis* var. n., GRABAU Nat. Hist. Central Asia p. 342 pl. xxxii, f. 3 a-d, 4 a-b.—*B. borealis* sp. n. Eotriassic Greenland.

SPATH Medd. Grønland **83** 1 p. 43 pl. ix, ff. 5, 6 a-c.—*B. demaneti* p. 785, *nardorstonensis*, *monensis* p. 801, *bicarenus latifascia* p. 803, *gardineri wrighti* p. 804, *latisulcatus* p. 807, *bristolensis* p. 808, *konincki* p. 811, *torwoodensis*, *maximus* p. 812, spp. & var. n., WEIR, J. Trans. Roy. Soc. Edinb. **56** 3 1931 pl. i-vii.

†*Bucania decussata*, WIRTH **956**.

†*Bucaniopsis roscobiensis*, *concinus*, *densistriatus*, *hibernicus tenuis*, *imbricatus*, *passeletensis*, *penneystonensis*, *boltoni*, spp. n., J. WEIR Trans. Roy. Soc. Edin. **56** 3 1931 pp. 825-835 pl. vii.

†*Dirhachopea* gen. n. of Pleurotomariidae with *D. normalis* genotype, *intermedia*, *subrotunda*, *appressa*, *corrugata*, *abrupta*, *dubia* spp. n. Dolomite U.S.A., ULRICH & BRIDGE Missouri Bureau Geol. & Mines **24** pp. 187-190 figs.

*Emarginula crassa*, *fissura*, LÖNNBERG **519**.

†*Emarginula hawcraensis* sp. n. Pliocene N.Z., POWELL Rec. Auckland Inst. Mus. p. 96, f. 17.—*E. cipliensis*, *dejaeri* spp. n. Tuffeau & Poudingue Belgium, VINCENT Mem. Mus. H.N. Belg. pp. 14-15 pl. i f. 1 2 text-figs.

†*Euomphalopsis* gen. n. of Euomphalidae with *E. involuta* type, and *robusta* spp. n. Dolomite Iowa, ULRICH & BRIDGE Missouri Bureau Geol. & Mines **24** pp. 201, 202 pl. xxi, ff. 17-20.

†*Euphemites* nom. n. for *Euphemus* McCoy non Laporte, WARTHIN Bull. Surv. Geol. Okla **53** p. 44.

†*Euphemus konincki*, *urei*, *hindi urei ardenensis*, *anthracinus*, *jacksoni*, *pentonensis*, *multilira*, *portlocki* spp. & vars. n., J. WEIR Trans. Roy. Soc. Edin. **56** 3 1931 pp. 843-855 pl. ix.

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*Fissurella*, DASSEN **214**.

†*Fissurella hyderabadensis* sp. n. Eocene India, COX Trans. R. Soc. Edin. **57** 1 p. 36 pl. i f. 1 a-c.

†*Gasconadia* gen. n. of Pleurotomariidae with *G. (Murchisonia) putilla* Sardeson, genotype, ULRICH & BRIDGE Missouri Bureau Geol. & Mines **24** p. 197 figs.

†*Goniospira helicaformis* sp. n. Limestone U.S.A., SAYRE Kansas Univ. Bull. **19** p. 136 pl. xv f. 2.

*Haliotis rufescens*, *cracherodii*, *fulgens*, *corrugata*, CROKER **206**.—*H. gigantea*, OKTUKI **606**.—*H. rufescens*, *cracherodii fulgens*, WALFORD **927**.

†*Haliotis palaea* sp. n. Miocene California. WOODRING J. Paleont. Sharon Mass. **5** 1 p. 38 pl. vi.

†*Helicotoma kanekoi* sp. n. Ordovician Korea, KOBAYASHI Bull. Geol. Surv. Chosen **11** 1 p. 35, f.

†*Lecanospira sigmoidea*, *salteri*, *biconcava* spp. n. Dolomite U.S.A., ULRICH & BRIDGE Missouri Bureau Geol. & Mines **24** p. 206 pl. xxii ff. 2-4.

†*Luciella planoconvexa*, *elongata*, *perlimbata* spp. n., GRABAU Nat. Hist. Central Asia pp. 346-349 pls. xxxiii f. 8, xxxiv f. 1 a-b, 2 a-b; f. 4 a-b; f. 4 a-b.

†*Murchisonia matheri* sp. n. Limestone U.S.A., SAYRE Kansas Univ. Bull. **19** p. 135 pl. xvi f. 1-2.

†*Ophileta supraplana* sp. n. Dolomite Tennessee, ULRICH & BRIDGE Missouri Bureau Geol. & Mines **24** p. 199 pl. xxi ff. 9, 10.

†*Ozarkina* gen. n. of Euomphalidae with *O. typica* genotype, *complanata* spp. n. Dolomite Mo., ULRICH & BRIDGE Missouri Bureau Geol. & Mines **24** pp. 200, 201 pl. xxi ff. 4, 5, 8.

†*Phanerotrema grayvillense* fig., PLUMMER & MOORE **681**.

†*Planerotrema ornatum* sp. n. Limestone U.S.A., SAYRE Kansas Univ. Bull. **19** p. 136 pl. xv f. 3-3b.

†*Pleurotomaria depressa*, COX **195**.—*P. (Gossetina) lebedewi* fig., LICHAREW **516**.—*P. plana*, *granulifera*, *regalis*, *subgigantea*, RIEDER **732**.—*P. yabeshigerni* sp. n. Tuffaceous Sandstone Manchuria, KOBAYASHI Japan. J. Geol. Geog. **8** 4 p. 245 pl. 24 f. 4 a-b, 5, 6.—*P. bilineata*, *fisheri*, *kansasensis* spp. n. Limestone U.S.A., SAYRE Kansas Univ. Bull. **19** pp. 132-134 pl. xiii f. 13, 10-10b, pl. xiv f. 1-1a.—*P. montensis* sp. n. Tuffeau Belgium, VINCENT Mem. Mus. H.N. Belg. **46** pp. 12-13 pl. i f. 1 & text-figs.—*P. leufuensis*, *gerthi* spp. n. Jurassic Argentina, WEAVER Mem. Univ. Washington **1** 1931 pp. 364-367 pls. 41, 42.

†*Ptychomphalus laudenslageri*, *lineata* spp. n. Limestone U.S.A., SAYRE Kansas Univ. Bull. 19 pp. 134-135 pl. xv f. 4-4a, pl. xiv f. 5, 56.

†*Raphistoma ichimurai* sp. n. Ordovician Korea, KOBAYASHI Bull. Geol. Surv. Chosen 11 1 p. 34 f.

†*Rhachopea* gen. n. of Pleurotomariidae with *R. typica* genotype, *transitans*, *elevata*, *grandis* spp. n. Dolomite U.S.A., ULRICH & BRIDGE Missouri Bureau Geol. & Mines 24 pp. 190-193 figs.

*Sinuopea vera*, *cingulata*, *umbilicata*, *basiplanata*, spp. n. Chert. U.S.A., ULRICH & BRIDGE Missouri Bureau Geol. & Mines 24 pp. 194, 195 figs.

†*Taeniospira* gen. n. of Pleurotomariidae with *T. eminencensis* genotype sp. n. Sandstone U.S.A., ULRICH & BRIDGE Missouri Bureau Geol. & Mines 24 p. 196 pl. 18 ff. 25-27.

†*Trypanocochlea* with genotype *Verania cerithioides* Koken nom. n. for *Verania* Koken non VÉRANY, TOMLIN P.M.S. 19 p. 175.

†*Waagenella rectistriatus* p. 815, *rownhamensis* p. 816, spp. n., J. WEIR Trans. Roy. Soc. Edin. 56 3 1931 pls. v, ix.

†*Zonidiscus* (?) *ambiguus* sp. n., J. WEIR Trans. Roy. Soc. Edin. 56 3 1931 p. 840 pl. viii.

# **TROCHIDAE, STOMATELLIDAE, TURBINIDAE, DELPHINULIDAE, CYCLOSTREMATIDAE, COCCULINIDAE.**

†*Amberleya graysonensis* sp. n. Shale Texas, ADKINS Bull. Univ. Texas 1856 1918 p. 137 pl. vi f. 5.

†*Antisolarium castigatum* sp. n. Oligocene N.Z., MARWICK Palaeont. Bull. N.Z. 18 1931 p. 88 figs.

*Argalista micans* sp. n. (Turbinidae) N. of Enderby Id., POWELL Rec. Canterbury (N.Z.) Mus. 3 p. 374 f. 4.

†*Astele boulevardii* sp. n. Miocene N.Z., MARWICK Palaeont. Bull. N.Z. 18 1931 p. 87 figs.

†*Astraea* (*Pomaulax*) *gradata* sp. n. Pliocene California, GRANT & GALE Mem. S. Diego Soc. N.H. 1 pp. 13, 818 pl. 31 ff. 1 a-b, 3 a-b, 5, 8, 9.

†*Bathybembix argenteonitens*, SAHEKI 756.

*Bolma colini* sp. n. Tertiary N.Z., L. C. KING Tr. Pr. N.Z. Inst. 62 p. 80 f. 1-3.

*Brookula* (*Aequispirella*) *enderbyensis* (Liotiidae) sp. n. 10 m. N. of Enderby Id. 85 fms., POWELL Rec. Canterbury (N.Z.) Mus. 3 p. 372 fig. 6.

†*Calliomphalus* ? *ciptyensis* sp. n. Tuffeau Belgium, VINCENT Mem. Mus. N.H. Belgium p. 19 pl. i f. 7 text-fig.

*Calotropis* nom. nov. for *Calliotropis* Oliver 1926 non Seguenza 1903 type, *Trochus cunninghami* Gray, THIELE Handb. 1 p. 49.

*Carswellena* gen. n. type *Turbo exquisitus* Ang., IREDALE Rec. Aust. Mus. 18 4 p. 209.

†*Cinulia washitaensis* sp. n. Shale and Ironstone, ADKINS Bull. Univ. Texas 1856 1918 p. 143 pl. x ff. 33-37.

†*Conjectura proava* sp. n. Oligocene N.Z., MARWICK Palaeont. Bull. N.Z. 18 1931 p. 86 figs.

†*Cyclonema* ? *sonrinensis* sp. n. Ordovician Korea, KOBAYASHI Bull. Geol. Surv. Chosen 11 1 p. 36 f.

†*Elachorbis albolapis* sp. n. Tertiary N.Z., LAWS Trans. Proc. N.Z. Inst. 61 3-4 1930 p. 549 pl. 91.—*E. edomita* sp. n. Oligocene N.Z., MARWICK Palaeont. Bull. N.Z. 18 1931 p. 86 figs.

*Fautor excultus* sp. n., IREDALE Rec. Aust. Mus. 18 4 p. 208.

†*Flemingia tepeeformis*, *gigas* spp. n., GRAU Nat. Hist. Central Asia pp. 355, 356 pl. xxxiv f. 10 a-b, 11 a-c; xxxv f. 1 a-b.

*Forskaliopsis* sect. n. of *Gibbula*, Capri figs. G. S. COEN Ann. Mus. Zool. Univ. Napoli (N.S.) 6 4 1930 pp. 1-2.

*Gibbula tumida*, *cineraria*, LÖNNBERG 519.—*G. magus* faecal pellets fig., MOORE 573.

*Laciniorbis morti*, *hedleyi* spp. n., IREDALE Rec. Aust. Mus. 18 4 p. 209.

†*Liospira lenticularis* sp. n., *kawasakii* f. n. Ordovician Korea, KOBAYASHI Bull. Geol. Surv. Chosen 11 1 p. 33 figs.

*Lodderena formosa*, *nanu*, spp. n. New Zealand, POWELL Trans. Proc. N.Z. Inst. 61 3-4 1930 p. 541 pl. 87.

†*Maurea* (*Mucrinops*) *granti* sp. n. (Calliostomatidae) Pliocene N.Z., POWELL Rec. Aust. Inst. Mus. p. 97 f. 34, 35.



†*Modelia nukumaruensis* sp. n. Tertiary N.Z., LAWS Trans. Proc. N.Z. Inst. 61 3-4 1930 p. 550 pl. xc.

*Monodonta labes* (sic), KING & PING 448.

*Orbitestella toreuma* sp. n. New Zealand, POWELL Trans. Proc. N.Z. Inst. 61 3-4 1930 p. 542 pl. lxxxviii.

*Phasianella tropidophora* sp. n. S.A., TOMLIN Ann. Natal Mus. 6 3 1931 pp. 420 pl. xxxiii f. 1.

†*Roya coniformis* sp. n. Oligocene N.Z., MARWICK Palaeont. Bull. N.Z. 18 1931 p. 85 fig.

†*Solariella sakya* sp. n. Tertiary Japan, YOKOYAMA J. Fac. Sci. Univ. Tokyo Geol. Min. 3 4 p. 202 pl. xii f. 9.

†*Solenospira mongolica* sp. n., GRABAU Nat. Hist. Central Asia p. 351 pl. xxxv f. 13 a-b.

†*Straparollus shirakii* sp. n. Ordovician Korea, KOBAYASHI Bull. Geol. Surv. Chosen 11 1 p. 34 f.

*Subninelia* sect. n. of Turbinidae T. (S.) *undulatus* Martyn, type Thiele Handb. i p. 68.

†*Tectus septemstriatus* sp. n. Tuffeau, Belgium, VINCENT Mem. Mus. N.H. Belg. 46 p. 17 pl. i f. 4 text-fig.

†*Tegula* (*Chlorostoma*) *dubiosa* nom. n. for *Astraliu arnoldi* Nomland non Weaver, Pliocene California, GRANT & GALE Mem. S. Diego Soc. N.H. 1 pp. 13, 827.

*Thalotia comtessei* sp. n., IREDALE Rec. Aust. Mus. 18 4 p. 208.

*Trochus* (*Gibbula*) *hornungi* sp. n. Red Sea fig., BISACCHI Ann. Mus. Civ. S.N. Genova 55 1931 p. 180.—*T. erythraeus*, JORDAN & TERWIEL 426.—*T. niloticus*, KING & PING 448.—*T. pedolicus*, KLINGER 453.—*T. turbinatus*, SCHREIBER 780.—*T. niloticus*, *maximus*, TALAVERA & FAUSTINO 844.—*T. turbinatus*, *mutabilis*, TUZET 892.

†*Trochus bajaranasi*, *nefas*, n. *pseudopedolicus*, n. *tarchanensis*, n. *jusmakensis*, *personatus*, *pseudomaeoticus*, n. *spartensis*, *retowskii*, *pictiformis* And. var. *suckensis*, spp. n. Tertiary; *T. blainvillei*, *marginatus* m. *costatopapilla* var. n. p. 139: m. *armavirensis* var. n. p. 141: *philippisinzovi*, *longomarginatus*, *marginatosinzovi*, *insperatus*, spp. n., KOLESNIKOV Trav. Mus. Geol. Lenin-

grad 7 pp. 129-151 pls. i, iii.—*T. laticonicus* sp. n. Shale Texas, ADKINS Bull. Univ. Texas 1856 1918 p. 138 pl. x ff. 30, 31.—*Trochus* Gault India, COX 199.—*T. (Basilissa) lukavatzensis* (*Calliostoma*?) *dolinae* spp. n. [n. n.], HAWELKA 360.

*Turbo fossilifer* sp. n. Eocene Dutch E. Indies, MARTIN Wetens. Meded. Mijnb. Weltevreden 18 1931 p. 44 figs.—*T. spenglerianus*, KING & PING 448.—*T. cornutus*, OKTUKI 606.—*T. marmoratus*, TALAVERA & FAUSTINO.

†*Turbo bozasi* sp. n. Jurassic Africa Tagfidadaedi, BASSE Mem. Soc. géol. Fr. Paléont. N.S. 6 p. 112 pl. iv ff. 1 a-b.—*T. postulatus*, FINLAY 269.

†*Umbonium giganteum naganumanum* var. n. abstract (J. Geol. Soc. Tokyo), OTUKA Geol. Zentralb. Leipzig 45 5 1931 p. 332.

†*Worthenia nana* sp. n., GRABAU Nat. Hist. Central Asia p. 350 pl. xxxiv f. 5 a-b.

*Zizyphinus striatus*, *granulatus*, TUZET 892.

#### NERITOPSIDAE, NERITIDAE.

†*Naticopsis* ? *minuta* sp. n. Limestone U.S.A., SAYRE Kansas Univ. Bull. 19 p. 142 pl. xviii f. 5-5a.—*N. arctica* sp. n. Eotriassic Greenland, SPATH Medd. Grønland 83 1 p. 45 pl. ix ff. 2 a-e.

*Nerita planospira*, *rufa*, *petiveriana*, KING & PING 448.—*N. costata*, *sulcosa*, LAMY 495.—*N. reticulata*, RISBEC 736.

†*Nerita* (*Desmiera*) *corneti* sp. n. Poulingue Belgium, VINCENT p. 20 pl. i f. 8 & text-fig.

Neritidae, GERMAIN 313.—WENZ 469.

*Neritina danubialis*, *transversalis fluvialis* figd., SCHREITMÜLLER 781.—*Neritina* type *N. pulligera* [STILES] 824.—*N. reclinata sphaera* subsp. n. Florida, PILSBRY Nautilus 45 p. 67 pl. 3 f. 3.

†*Neritopsis multicostata*, VINCENT.

*Theodoxia fluvialis*, TUZET 892.

*Theodoxus*, GASCHOTT 305.

†*Trachydomia pustulosa* sp. n. Limestone U.S.A., SAYRE Kansas Univ. Bull. p. 152 pl. xviii f. 3-3a.

†*Velata* Quenstedt *abjecta*, *grada*, ARKELL 22.—*V. velata* (Goldfuss), COX 196.

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*Alcidia erythrozona* sp. n. Jamaica,  
DEAN J. Conch. 19 4 p. 116 figs.

*Geotrochatella* [*Geotrochatella* P. Fischer], THIELE Handb. 1 p. 82.

*Helicina ignava* sp. n. Lubang Id.,  
CLENCH & ARCHER Occ. Pp. Boston  
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*japonica*, EMURA 254.

*Helicinidae*, BROOKS 134.

*Hendersonia occulta*, JONES 422.

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**VALVATIDAE, PILIDAE, CYCLO-**  
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*Alcidiella* nom. nov. for *Alcidia*  
Monts. 1890 nec Westwood 1879 nec  
Bourguignat 1889, Rissoidae, THIELE  
Handb. 1 p. 163.

*Alycaeus*, DICKERSON 227.

*Amnicola*, RAWSON 712.

*Amphithalamus* (*Estea*) *kis* sp. n.  
Trincomali, Ceylon, WINCKWORTH J.  
Conch. 19 5 p. 146 fig.

*Ampullaria* [*Pila*] *gigas*, FISCHER 273,  
274.

*Arinia manggaraica*, *palinaeformis*,  
*crassiventris*, A. (*Leucarinia*) *tjendanae*  
spp. n. Sunda Ids., RENSCH Zool. Jahrb.  
Jena (Syst.) pp. 391–393 figs.

*Aroa* subgen. n. of *Potamopyrgus*,  
H. B. BAKER Oc. Pprs. Mus. Univ. Mich.  
[Z.R. 1930 210] p. 35. Vide *Aroapyrgus*.

*Aroapyrgus* nom. n. for *Aroa* preoc.,  
H. B. BAKER Nautilus 44 p. 143.

†*Bithynella deydierei curta*, d. *elongata*,  
vars. n., JODOT Bull. Soc. geol. Fr. 29  
p. 273.

*Bithynella scholtzii* f., SELIGO 785.

†*Bithynia tentaculata*, TRUSHEIM 888.

Bythinellidae, GERMAIN 313.

†*Brookesena quadricincta* sp. n. Oligocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 p. 90 fig.

†*Bulimidae* (= *Bithyniidae*), WENZ 468.

*Bulimus croaticus*, WENZ 468.

*Callianella pachystoma* sp. n. Sumba,  
RENSCH Zool. Jahrb. Jena (Syst.) 61  
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*Campeloma*, RAWSON 712.

†*Campeloma nebrascensis reticulata*  
var. n. Tertiary Wyoming, RUSSELL  
Bull. Amer. Paleont. Itaca 18 64 p. 8.—  
*C. limnaeiformis*, *praecursora*, *multi-*  
*lineata*, *producta*, figs., WARREN 930.

*Carinolacuna* subgen. n. of *Lacuna*  
Turton type *L. carinifera* A. Ad.,  
THIELE Handb. 1 p. 122.

†*Ceratodes niameyensis* sp. n. Tertiary  
Africa, DOLLFUS & DAUTZENBERG J. de  
Conch. Paris 69 1925 pp. 225–228 figs.

*Choanopoma gaigei* sp. n. Yucatan,  
BEQUAERT & CLENCH Occ. Pp. Boston  
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*Coptochilus* [*Schistoloma*], DICKERSON 227.

Cyclophoridae, RENSCH 727.

*Cyclophorus reevei lubaniticus* var. n.  
Lubang Id., CLENCH & ARCHER Occ.  
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*Cyclostoma* [*Cyclostoma* in summary]  
*elegans*, TUZET 892.

Cyclostomidae, GERMAIN 313.

*Cyclotus ranae* sp. n. Rana, RENSCH  
Zool. Jahrb. Jena (Syst.) 61 p. 374 fig.—  
*C. obscuratus* sp. n. Timao, RENSCH  
Zool. Jahrb. Jena (Syst.) 60 1931 p. 433  
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*Diplommatina* (*Sinica*) *floris*, *javana*  
*orientalis*, *fluminis*, *D. (Metadiancta?)*  
*diplostoma* spp. et var. n. Sunda Ids.,  
RENSCH Zool. Jahrb. Jena (Syst.)  
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†*Fossaria parva tazewelliana* (Wolf)  
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*Fossarulus greenmani* sp. n., PING  
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†*Harmeria* nom. n. for *Lacunopsis*  
Harmer 1923 non Deshayes 1874,  
TOMLIN P.M.S. 19 p. 174.

†*Haurakia buccella* sp. n. Oligocene  
N.Z., MARWICK Palaeont. Bull. N.Z. 13  
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†*Holopea tateiwai* sp. n. Ordovician  
Korea, KOBAYASHI Bull. Geol. Surv.  
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†*Hydrobia morasensis*, JODOT 415.

*Hydrobiidae*, GASCHOTT 305.—GODFREY 319.

†*Hydrobiidae*, WENZ 468.

†*Ihungia* gen. n. of Rissoidae with type *I. luteophila* sp. n., *amberleya*, *bicarina* spp. n. Oligocene N.Z., MARWICK *Palaeont. Bull. N.Z.* 13 1931 p. 89 figs.

*Japonia* (?) *fallax*, sp. n. *J. trochulus baliensis* var. n. Sumba and Bali, RENSCH *Zool. Jahrb. Jena (Syst.)* 61 pp. 381, 382 figs.

*Lanistes oligocenus* nom. nov. for *L. bartonianus* Blankenhorn, CUVILLIER *Mem. Inst. Egypt* 16 1930 [omission.]

*Lagochilus*, DICKERSON 227.

*Lartetia gebhardtii* sp. n. S. Hungary, H. WAGNER *Zool. Anz. Leipzig* 95 1931 p. 292.

*Leptopoma kejong* sp. n. Lubang Id., CLENCH & ARCHER *Occ. Pp. Boston Soc. Nat. Hist.* 5 1931 p. 337 pl. xvii.

*Lissoconchus* subgen. n. of *Cremnoconchus* Blf. type *C. conicus* Blf. *Littorinidae*, THIELE *Handb.* 1 p. 125.

*Litorina* [*Littorina*] *rudis* var. *tenebrosa*, MUNTKE 583.

*Littorina rudis*, *littorea*, GURJANOWA SACHS & USCHAKOV 343.—*L. sitchana*, *scutulata*, HUMPHREY & MACY 396.—*L.*, MOORE 574.—*L. neritoides*, PATANE 631.—WELCH 938.—*L. saxatilis groenlandica* var. *sculpta* var. n. Iceland, H. SCHLESCH *Archiv f. Moll.* 63 4/5 p. 134 pl. xii f. 7.

†*Litorina* [*Littorina*], MUNTKE 585.

†*Littorina saxatilis*, *littorea*, ETON & BADEN-POWELL 253.—*L. sitchana* trails, FENTON 265—

*Maravignia* nom. nov. for *Maravignia* Arad. & Mag. *Fossariidae*, SHERBORN *Index Anim* part 15 May 1928 p. 3857.

*Melarthaphe neritoides*, DEAN 219.

*Micromelaniidae*, GERMAIN 313.

*Notosetia unicarinata* sp. n. New Zealand, POWELL *Trans. Proc. N.Z. Inst.* 61 3-4 1930 p. 543 pl. lxxxviii.

*Opisthoporus* [*Opisthoporus*], DICKERSON 227. p. 268

†*Orygoceras*, PAVLOVIC 635.

*Palaina polystoma* sp. n. W. Flores, RENSCH *Zool. Jahrb. Jena (Syst.)* p. 390 fig.

*Paludestrina confalonierii* [n. n.] GESTRO & VINCIGUERRA 314.—*P. jenkinsi*, STEUSLOFF 823.—WELCH 939.

*Paludina hoernesii*, JOLLOS 421.—*P. contacta*, LUTHER 528.—*P. vivipara*, MAYER 551.—*P. vivipara*, *diluviana fasciata* figs., TESCH 854.

*Pila conica*, JUTTING 431.

*Pilidae*, Indian, PRASHAD 687, 688.

†*Polytropis helicina*, FREEBOLD 289.

†*Pomatiopsis scalaris* fig., F. C. BAKER 41.

*Problitora* gen. n. "*Litorinidae*" type *Amauropsis morchi* A. Ad. & Ang, IREDALE *Rec. Aust. Mus.* 18 4 p. 216.

†*Prososthenia zitteli kragujevacensis* var. n. Tertiary Balkans, BOJIC *Ann. geol. Pén. balkan. Beograd* 10 2 1931 p. 124.—*P. bouei*, *burgersteini* "sp. n." [n. n.], PAVLOVITCH 637.

*Pseudotopoma* sect. n. of *Cyclotopsis* Blf. type *Otopoma hinduorum* Blf. *Cyclophoridae*, THIELE *Handb.* 1 p. 128.

*Pupinella rufa alba* form. n. [PILSBRY] *Nautilus* 45 1 p. 29 664.

†*Pyrgula sinensis* sp. n. Pliocene, China, ODHNER *Palaeont. sinica* B 6 4 p. 24 pl. iii f. 35.

*Rhiostoma spelaeotes*, *samuiense* spp. n. Siam, TOMLIN *P.M.S.* 19 p. 227 figs.

*Rissoa strombecki*, *dubia*, HELLER 365.

†*Rissoia cimex*, *punctura*, *cancellata*, PATRINI 634.

*Rissoidae*, GODFREY 319.

*Rissina allemani* sp. n. Panama Bartsch *Proc. U.S. Nat. Mus.* 79 15 1931 p. 5 pl. i f. 5.—*R. leucophanes*, *jeffreysiensis* spp. n. S.A., TOMLIN *Ann. Natal Mus.* 6 3 1931 p. 421-2, pl. xxxiii f. 2.

*Rissopsis expansa* sp. n. New Zealand, POWELL *Trans. Proc. N.Z. Inst.* 61 3-4 1930 p. 544 pl. 88.

*Scrobs* (*Nannoscrobs*) *rugulosa* sp. n. New Zealand, POWELL *Trans. Proc. N.Z. Inst.* 61 3-4 1930 p. 542 pl. 88.

*Scrupus uniliratus* sp. n. (*Rissoidae*) N. of Enderby Id., POWELL *Rec. Canterbury (N.Z.) Mus.* 3 p. 373 f. 2.

†*Stenothyra rissoides minor* sp. et var. n. *brevis*, *ovata*, *gibbula*, *percarinata*, *costellata*, *marginata*, *scala*, *fasciolata*, *supracarinata* spp. n. Pliocene China, ODHNER Palaeont. sinica B 6 4 pp. 19-23 pl. iii.

*Subonoba paucicostata*, *parvula* spp. n. (Rissoidae) off Bounty Ids., and Awanui Heads, POWELL Rec. Canterbury (N.Z.) Mus. 3 p. 375 f. 3, 7.

†*Tectarium* (*Echinella*) *songoëns* sp. n. Eocene Dutch E. Indies, MARTIN Wetens. Meded. Mijnb. Weltevreden 18 1931 p. 41 fig.

†*Tuba peruviana* sp. n. Eocene Peru, OLSSON Bull. Amer. Paleont. 17 62 p. 69, pl. xii ff. 9, 10.

†*Tulotoma gigas* sp. n. Pliocene China, ODHNER Palaeont. sinica B 6 4 p. 13 pl. iii f. 19.

*Tylopoma carinata* sp. n. Miocene Rumania, WENZ Z. Deuts. geol. Ges. Berlin 83 2 1931 p. 113 pl. i f. 11.

*Valvata macrostoma*, ELLIS 250.—*V. tricarinata*, FURROW 298.—*V. lewisi* Currier, *limpida* Gould figd., MOZLEY 579.—*Valvata*, RAWSON 712.—*V. lewisi ontariensis* var. nov. Ontario, BAKER, F. C. Nautilus 44 4 pp. 119-121.

†*Valvata radovanovici* "sp. n." [n. n.], PAYLOVITCH 637.

Valvatidae, GERMAIN 313.—WENZ 468.

*Vivipara*, CHANG 155.—*V. vivipara*, HENKEL 371.

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*Viviparus* Montfort, BOETTGER 102.—*C. contectoides*, CRABB 204.—*Viviparus*, FRANZ 283.—*V. contectus*, OLDHAM 610.—*V. rubicundus*, WORTHINGTON 965.

†*Viviparus wickmanni* Rio Negro, DOELLO-JURADO 231.—*V.*, FRANZ 283.—*V. hasani* sp. n. India, PRASHAD Rec. geol. Sur. India 63 p. 429 pl. xix f. 1-3.—*V. leai*, WARREN 930.—*V. moldavicus* sp. n. Mästisches Rumania, WENZ Z. deuts. geol. Ges. Berlin 83 2 1931 p. 117 pl. i f. 12.

## TRUNCATELLIDAE, ACICULIDAE.

Acmidae, GERMAIN 313.

*Ammonicera fischeriana*, VAYSSIÈRE 901.

Assimaniidae, GERMAIN 313.—GODFREY 319.

†*Ceraunocochlis* gen. n. (Subulitidae) type *C. fulminula*, *blatta*, spp. n. Pennsylvanian Missouri, KNIGHT J. Paleont. Sharon Mass. 5 3 1931 pp. 194, 203.

*Gonatorhyphe* [*Gonatorhaphe* Millf.] Assimineidae, THIELE Handb. 1 p. 173.

*Mecoliotica* [*Mecoliotia* Hedley] Adcorbiidae, THIELE Handb. 1 p. 176.

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## CERITHIIDAE, PLANAXIDAE, THIARIDAE, PLEUROCERIDAE, PSEUDOMELANIIDAE, NERINEIDAE.

†*Aclisina stevensana gibbosa* var. n. shale Oklahoma, WARTHIN Bull. Surv. Geol. Okla 53 p. 54 pl. vii f. 25.

†*Anconia* gen. n. type *A. elenensis* sp. n. Oligocene Peru, OLSSON Bull. Amer. Paleont. Ithaca 17 63 pp. 83, 84 pl. xvi.

†*Aphanoptyxis bladonensis* sp. n. [nom. n.] for *Nerinaea endesii* Odling, *tomesi* sp. n. *ardleyensis* sp. n. *Nerinea* aff. *funiculus* Odling Oolite Oxon., ARKELL Quart. J. Geol. Soc. London 87 4 1931 pp. 596, 618-619 pl.

†*Aptyxis caucasica* sp. n. Jurassic Caucasus, POELINCEV Trans. Geol. Prospect. Ser. U.S.S.R. 91 1931 pp. 121, 164 fig.

†*Auriptygma subtilistriatum virgatum*, *simplex*, Shales Missouri spp. n., KNIGHT J. Paleont. Sharon Mass. 5 3 pp. 225, 226, pls.

†*Batillaria coronata* sp. n. Tertiary India, COX Mem. geol. Surv. India (N.S.) 15 p. 146 pl. xvii ff. 7, 8 a-c.

*Batillariella* subgen. et sect. n. of *Batillaria* Benson type *B. estuarina* Tate Potamididae, THIELE Handb. 1 p. 208.

*Bittium intamonatum* sp. n. Tertiary Japan, YOKOYAMA J. Fac. Sci. Univ. Tokyo geol. Min. 3 4 p. 201 pl. xii f. 5.

†*Bittium* (*Lirobittium*) *asperum* Gabb *dilatatum* var. n. Pliocene, GRANT & GALE Mem. S. Diego Soc. N.H. 1 pp. 13, 760 pl. xxiv f. 14.—*B. reticulatum* PATRINI 634.

†*Bulimorpha inornata* fig., PLUMMER & MOORE 681.

†*Campanile brookmani* sp. n. Tertiary India, COX Mem. Geol. Surv. India (N.S.) 15 p. 149 pl. xvii f. 2, 3, 4 a-b, 5.

*Cautor* Triphoridae, COTTON & GODFREY 190.

†*Cerishium* [*Cerithium*] *pyramidaeforme* sp. n. Cretaceous Japan, NAGAO J. Fac. Sci. Hokkaido Imp. Univ. (4) 1 1930 p. 23 pl. iii f. 4-8, 15.

*Cerithideopsis* sect. nov. of *Cerithideopsis* Thiele type *C. fluviatilis* P. & M., THIELE Handb. 1 p. 206.

*Cerithideopsis* subgen. et sect. n. of *Cerithiidae* Sw. type *C. iostoma* Pfr., THIELE Handb. 1 p. 206.

*Cerithium vulgatum*, EHRENBERG 245.—*C.*, KAMANIN & STOOKEVIC 432.—*C. trailii*, KING & PING 448.—*C. pictum, disjunctum*, KLINGER 453.—*Cerithium madreporicola*, text-fig. *falcies, proteum*, spp. n. *C. sergentum* nom. n. for *lineatum* Tryon non Lk. Red Sea, JOUSSEAUME J. de Conchyl. 74 4 pp. 275, 278, 283, 284.

†*Cerithium trochleare*, ALIMEN 7.—*C. tuberculosum*, MORELLET 577.—*C.*, PAVLOVIC 635.—*C. (Campanile) boussaci, newtoni* spp. n. [n. n.], HAWELKA 360.—*C. baluchi, oldhami* spp. n. Laki, Baluchistan, COX Tr. R. Soc. Edin. 57 1 p. 42 pl. i f. 6, 9.—*C. (Pseudovertagus) dubaleni* (Tournouer MSS.), (*Tympanotonus*) *bironense*, (T.) *hybrida*, spp. n. Eocene France, DOUVILLÉ & O'GORMAN Bull. Soc. géol. Fr. 29 6-7 1929 pp. 360-361 pl. xxix.—*C. simplicius* sp. n. Pliocene, GRANT & GALE Mem. S. Diego Soc. N.H. 1 pp. 13, 757 pl. xxiv f. 11.—*C. (Ptychocerithium) nanggulanense, C. boettgeri* spp. n. Eocene Dutch E. Indies, MARTIN Wetens. Meded. Mijnb. Weltevreden 18 1931 pp. 38, 39 figs.—*C. macarum* sp. n. Oligocene Peru, OLSSON Bull. Amer. Paleont. Ithaca 17 63 p. 87 pl. 16.—*C. ? cipliyense* sp. n. Poudingue Belgium, VINCENT Mem. Mus. N.H. Belg. 46 p. 35 pl. ii f. 1 text-fig.

*Cerithiidae*, ANON 16.

†*Climacina subcontracta*, COSSMANN 186.

*Colina perimensis* nom. n. for *taeniatum* Sow. non Q. & G. Red Sea, JOUSSEAUME J. de Conchyl. 74 4 p. 285.

*Eurycaelon anthonyi, crassa*, GOODRICH 322.

†*Eustoma binodosum* sp. n. Jurassic Caucasus, PÖELINGEV Trans. Geol. Prospect. Ser. U.S.S.R. 91 1931 pp. 132, 165 fig.

*Euthymella* nom. n. for *Euthymia* Jous. 1884 non Stål 1876 type *E. regalis* Jous. Triphoridae, THIELE Handb. 1 p. 219.

*Eutriphora* gen. n. type *Triphora cana* Verco S. Australia, COTTON & GODFREY S. Aust. Nat. 12 4 p. 51 pl. i f. 1 & 2.

†*Exelissa africana* sp. n. Cretaceous Rassieta, DIAZ-ROMERO Palaeontogr. ital. Pisa 31 p. 50 figs.

*Goniobasis livescens correcta*, JEWELL D. D. 414.—*G. livescens*, LYON 529.

†*Hannatoma* gen. n. type *Melanatria gesteri* Hanna & Israelsky with *tumbezia, emendorferi* spp. n. Oligocene Peru, OLSSON Bull. Amer. Paleont. Ithaca 17 63 pp. 81, 82 pl. xv.

†*Hemisinus terebriformis* sp. n. Oligocene Peru, OLSSON Bull. Amer. Paleont. Ithaca 17 63 p. 83 pl. xv f. 4.

*Hypotriphora* gen. n. type *Triphora subula* Verco 1909 S. Australia, COTTON & GODFREY S. Aust. Nat. 12 4 p. 56 pl. i ff. 11-12.

*Hypsipleura*, COSSMANN 186.

*Ischnocerithium* subg. n. *Colina* H. & A. Ad. type *C. rostrata* Sow. *Cerithiidae*, THIELE Handb. 1 p. 212.

*Isotriphora* gen. n. type *Triphora tasmanica* T. Woods 1876 S. Australia, COTTON & GODFREY S. Aust. Nat. 12 4 52 pl. i f. 3.

†*Keilostoma subturricula* sp. n. (= *Melania marginata* Arc. & H. non Lk.) Laki Salt Range, COX Tr. R. S. Edin. 57 1 p. 47.

†*Macrocheilina (Sphaerodoma) transitoria* sp. n., GRABAU Nat. Hist. Central Asia p. 363 pl. xxxv f. 9.

*Macrochilina* Bayle emend Knight, KNIGHT J. Paleont. Sharon Mass. 5 3 p. 207.

†*Macrochilina symmetrica*, FIEBOLD 289.

†*Meekospira peracuta choctawensis* fig., PLUMMER & MOORE 681.



*Melania harbinensis* sp. n. Manchuria, PING Bull. Fan Mem. Inst. Biol. Peiping 1 11 1930 pp. 207-209 figs.

†*Melania wyomingensis*, *whiteavesi* figs., WARREN 930.—*M. ameghiniana* Rio Negro, *pehuenchensis*, *macrochilinoides* Mendoza spp. n., DOELLO-JURADO Boll. Acad. Nac. Cien. Córdoba Buenos Aires 1927 30 pp. 413-416 figs.—*M. (Melanoides) puruensis* sp. n. Eocene Dutch E. Indies, MARTIN Wetens. Meded. Mijnb. Weltevreden 18 1931 p. 41 fig.—*M. tungkuanensis* sp. n. Pliocene, PING Palaeont. sinica B 6 6 14 pl. i & text-figs.

†*Melanoides tuberculata*, CONNOLLY 178.

†*Melanopsis pterochila*, WENZ 469.—*M. pelkovici* "sp. n." [n. n.], PAVLO-VITCH 637.

†*Metacerithium* Gault India, COX 199.

†*Miopila temperans*, *saepta* spp. n. Oligocene N.Z. MARWICK Palaeont. Bull. N.Z. 18 1931 p. 90 figs.

†*Nerinea ashfordensis* sp. n. Oolite Oxon., ARKELL Quart. J. Geol. Soc. London 87 4 1931 p. 617 pl.—*N. ursicinensis*, PÖELINCEV 638.—*N. tulae* sp. n., PETKOVICA Posebna Izdanja Belgrade 76 p. 98.

*Newtoniella teretromorpha* sp. n. Poudingue Belgium, VINCENT Mem. Mus. N.H. Belg. 46 p. 34 pl. i f. 19 & text-fig.

*Notosinister* Triphoridae, COTTON & GODFREY 190.

*Orthochetus cipliensis* sp. n. Tuffeau Belgium, VINCENT Mem. Mus. N.H. Belg. 46 p. 32 pl. i f. 18 text-fig.

†*Orthonema liratum* sp. n. Limestone U.S.A., SAYRE Kansas Univ. Bull. p. 151 pl. xvii f. 2-3.

†*Pachychilus canoasensis* sp. n. Oligocene Peru, OLSSON Bull. Amer. Paleont. Ithaca 17 63 p. 80 pl. xv f. 5.—*P. schumoi* sp. n., PILSBRY Nautilus 44 3 p. 84 pl. vii f. 1.

†*Paracerithium*, COSSMANN 186.

†*Phaneroptyxis robinsoni*, *subproboseidea*, *sulcata* spp. n. Jurassic Caucasus, PÖELINCEV Trans. Geol. Prospect. Ser. U.S.S.R. 91 1931 pp. 126-129, 164, 165 figs.

†*Pirena torta* sp. n. Tertiary India, Cox Mem. Geol. Sur. India (N.S.) 15 p. 144 pl. xvii f. 1.—*P. varians* sp. n. Eocene France, DOUVILLÉ & O'GORMAN Bull. Soc. géol. Fr. 29 6-7 1929 p. 367 pl. xxx.

†*Pirenopis dollfusi* sp. n. Eocene France, DOUVILLÉ & O'GORMAN Bull. Soc. géol. Fr. 29 6-7 1929 p. 371 pl. xxx ff. 15, 16.

Pleuroceridae, BROOKS 135.

†*Polyptyxis irregularis* sp. n. Jurassic Caucasus, PÖELINCEV Trans. Geol. Prospect. Ser. U.S.S.R. 91 1931 pp. 120, 163 figs.

*Potamides meta* sp. n. Panama, LI Bull. Geol. Soc. China 9 3 p. 267 pl. vi f. 50.

†*Potamides pascoei* sp. n. Laki Baluchistan, Cox Tr. R.S. Edin. 57 1 p. 43 pl. i f. 3.—*P. chira*, *hondensis* spp. n. Oligocene Peru, OLSSON Bull. Amer. Paleont. Ithaca 17 63 p. 88 pl. xv.

*Potamopyrgus crystallinus carinatus* p. 261, BOETTGER 103.

*Proclava* subgen. n. of *Cerithium* type *C. pfeifferi* Dkr., THIELE Handb. 1 p. 212.

*Proplanaxis* subgen. n. of *Planaxis* Lt. type *P. planicostatus* Sow., THIELE Handb. 1 p. 203.

*Proseila* sect. n. of *Seila* A. Ad. type *S. capitata* Cerithiopsidae, THIELE Handb. 1 p. 218.

†*Pseudobellardia* subgen. n. of *Pirena* Lk. Melanopsidae, type *Muricites auriculatus* Schlotheim Mid. Eocene Italy, Cox Tr. R.S. Edin. 57 1 p. 46.

†*Pseudofaunus* subgen. n. of *Faunus* type *F. (P.) bravoensis* sp. n. *F. (P.) chiraensis* sp. n. Oligocene Peru, OLSSON Bull. Amer. Paleont. Ithaca 17 63 pp. 85, 86 pls. xv, xvi.

†*Ptygmatis (Bactroptyxis) bacillus* sp. n. Oxford Oolite, ARKELL Quart. J. Geol. Soc. London 87 4 1931 p. 620.

†*Pyraxus octogonus* sp. n. Tertiary India, Cox Mem. Geol. Serv. India (N.S.) 15 p. 150 pl. xvii ff. 6 a-b.—*P. indicus* sp. n. Laki Baluchistan, Cox Tr. R.S. Edin. 57 1 p. 45 pl. i f. 12, 15.

†*Rhinoclavis cuesmensis* sp. n. Poudingue Belgium, VINCENT Mem. Mus. H.N. Belg. 46 p. 31 pl. i f. 17 & text-fig.

*Seilopsis* gen. n. (of Cerithiopsidae) for *S. peilei* Smith, TOMLIN Ann. Natal Mus. 6 3 p. 424.

*Soleniscinae* subfam. n. Subulitidae, KNIGHT J. Paleont. Sharon Mass. 5 3 p. 204.

*Soleniscus* (*Cylindritopsis*) *vaningeni* sp. n. Labette Shale Missouri, KNIGHT J. Paleont. Sharon Mass. 5 3 p. 323.

†*Soleniscus mongolicus* sp. n., GRABAU Nat. Hist. Central Asia p. 364 pl. xxxv f. 10, 11 a-b, 12.—*S. (Macrochilina) welleri* sp. n. Shale Missouri, KNIGHT J. Paleont. Sharon Mass. 5 3 pp. 210, 219 figs.

†*Specula infelix* sp. n. Oligocene N.Z., MARWICK Palaeont. Bull. N.Z. 18 1931 p. 91 figs.

†*Spirostylus bonarellii* sp. n., COSSMANN Com. Mus. nac. B. Aires 2 p. 204.

†*Stephanocosmia disputabilis*, COSSMANN 186.

*Supplanaxis* subgen. n. of *Planaxis* Lk. type *P. nucleus* Lk., THIELE Handb. 1 p. 203.

*Teretiphora*, COTTON & GODFREY 190.

†*Thiara vredenburghi* sp. n. Laki Baluchistan, Cox Tr. R.S. Edin. 57 1 p. 45 pl. i f. 13.

†*Thiaridae*, WENZ 469.

*Triphora alexandri*, *hemileuca* spp. n. S.A., TOMLIN Ann. Natal Mus. 6 3 1931 pp. 425-426 pl. xxxiii f. 3, 4.

*Triphoridae*, COTTON & GODFREY 190.

*Trochocerithium calliostomatoides* sp. n. Zanzibar, THIELE Handb. 1 p. 215 text-figs.

*Tyrsoecus andinus*, COSSMANN 186.

*Vicarya callosa* fig., W. D. SMITH 795.

†*Vicarya eocenica* sp. n. Laki Baluchistan, Cox Tr. R.S. Edin. 57 1 p. 44 pl. i f. 7 a, b, 8.

†*Zygopleura*, COSSMANN 186.—*Z. rugosa multicostata* figs., PLUMMER & MOORE 681.

**STROMBIDAE, APORRHAIIDAE, TRUTHIOLARIIDAE, TRICHOTROPIDIDAE, VERMETIDAE, TURRITELLIDAE, CAECIDAE, XENOPHORIDAE.**

†*Alaria jacobi* sp. n. Jurassic Africa Tagfidadaedi, BASSE Mem. Soc. géol. Fr. Paléont. N.S. 6 p. 113 pl. iv f. 7.

*Aliger* sec. n. of *Strombus* type *S. (A.) gallus* L., THIELE Handb. 1 p. 254.

*Aporrhais pumilio*, GRIFF 335.—*A. pespelecani*, LÖNNBERG 519.—*A. pespelecani* [*pespelecani*], THIELE Handb. 1 p. 252.

†*Arrhoges (Drepanochilus) rutoti* Pou-dingue, *A. montensis* Tuffeau spp. n. Belgium, VINCENT Mem. Mus. N.H. Belg. 46 pp. 42-43, pl. ii, f. 5, 6. text-figs.

*Canarium otiolum* sp. n., IREDALE Rec. Aust. Mus. 18 4 p. 212 pl. xxiii f. 6.

*Caecidae*, COTTON & GODFREY 190.

†*Chenopus speciosus*, GRAHLE 329.

†*Clisospira shorinensis*, ? *chundongensis*, spp. n. Ordovician Korea, KOBAYASHI Bull. Geol. Surv. Chosen 11 1 p. 37 f.

*Coecum trachea*, VAYSSIÈRE 901.

*Dolichosirius cupiens* gen. et sp. n., IREDALE Rec. Aust. Mus. 18 4 p. 211 pl. xxii, f. 9.

*Dolomena* gen. n. type *Strombus pulchellus* Rve, IREDALE Rec. Aust. Mus. 18 4 p. 212.

*Doxander* gen. n. type *Strombus vittatus* Gmel, IREDALE Rec. Aust. Mus. 18 4 p. 212.

*Euprotomus donnellyi* sp. n., IREDALE Rec. Aust. Mus. 18 4 p. 211 pl. xxiii f. 19.

*Glyptozaria* Turritellidae, COTTON & GODFREY 190.

*Incunula* Lippistidae, COTTON & GODFREY 190.

†*Joggacartanus* gen. n. for *sultani* Mart. (*Chenopus (Maussenetia) ? sultana*) Strombidae Eocene Dutch E. Indies, MARTIN Wetens. Meded. Mijnb. Weltevreden 18 1931 p. 36 figs.

*Lilax* Vermetidae, COTTON & GODFREY 190.

Lippistidae, COTTON & GODFREY 190.

*Magilina* Vermetidae, COTTON & GODFREY 190.

†*Maoricolpus ongleyi*, *proroseus* Tertiary N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 p. 93 figs.—*M. rosea manukauensis* subsp. n. (Turritellidae) Pliocene N.Z., POWELL Rec. Auck. Inst. Mus. p. 99 f. 9-10.

†*Mathildia briarti* sp. n. Poudingue e Belgium, VINCENT Mem. Mus. N.H. Belg. 46 p. 41 pl. ii f. 4 text-fig.

†*Mesalia pagoda* sp. n. Tertiary India, Cox Mem. Geol. Surv. India (N.S.) 15 p. 160 pl. xviii ff. 6 a, b, 7 a, b.

*Mesaliopsis* sect. nov. of *Mesalia* Gray type *M. opalina* Ad. & Rve. Turritellidae, THIELE Handb. 1 p. 181.

*Opposirius idoneus* gen. et sp. n., IRLEDALE Rec. Aust. Mus. 18 4 p. 210 pl. xxii f. 7.

†*Pareora* gen. n. of Turretellidae with type *Eghisia striolata* Hutton Miocene N.Z., *P. incincta* sp. n. Oligocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 p. 94 fig.

*Pelicaria marwicki* sp. n. Pliocene S. Australia, FINLAY Trans. Proc. N.Z. Inst. 62 1 p. 17.

*Peruchilus* gen. n. type *P. culberti* sp. n. Oligocene Peru, OLSSON Bull. Amer. Paleont. Ithaca 17 63 pp. 89–91 pl. xiv.

†*Prestrombus rockei* sp. n. Laki, Sind, Cox Tr. R.S. Edin. 57 1 p. 52 pl. ii ff. 6 a, b.

*Protomella* sect. n. of *Protoma* Baird type *P. pulchra* Sow. Turritellidae, THIELE Handb. 1 p. 182.

†*Rimella levis* sp. n. Tertiary India, Cox Mem. Geol. Surv. India (N.S.) 15 p. 166 pl. xx f. 14.—*R. velata* sp. n. Eocene Dutch E. Indies, MARTIN Wetens. Meded. Mijnb. Weltevreden 18 1931 p. 35 fig.—*R. peruviana* sp. n. Oligocene Peru, OLSSON Bull. Amer. Paleont. Ithaca 17 63 p. 93 pl. xxi f. 4.—*R. (Ectinochilus) gaudichaudi atarda*, RUTSCH 755.

*Rostellariella* sec. n. of *Rostellaria* type *R. (R.) delicatula* Nevill, THIELE Handb. 1 p. 253.

*Sequenzia* Lippistidae, COTTON & GODFREY 190.

†*Sequenzia ugdulenai denseplicata*, rareplicata vars. n. *S. parodii*, insignis spp. n., FUSINI Palaeontogr. ital. Pisa 31 p. 113 pl. ix.

*Stiracolpus* Turritellidae, COTTON & GODFREY 190.

*Strebloceras* Caecidae, COTTON & GODFREY 190.

†*Str ebloceras hinemoa* sp. n. Sandy clay Awamoan N.Z., FINLAY Trans. Proc. N.Z. Inst 62 1 p. 21 fig.

Strombidae, COULON 192.

*Strombus*, DAUTZENBERG & DOLLFUS 215.—*S. luhuanus*, vittatus, canarium, KING & PING 448.

†*Strombus chiraensis* sp. n. Oligocene Peru, OLSSON Bull. Amer. Paleont. Ithaca 17 63 p. 92 pl. ii f. 1.

†*Struthiolaria nexa*, *S. (Pelicaria) lacera* spp. n. Miocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 pp. 95, 96 fig.

†*Struthiolaria (Pelicaria) incrassata* sp. n. Lower Pliocene N.Z., POWELL Rec. Auckland Inst. Mus. 1 p. 101 f. 30–33.

*Tenagodus senegalensis* fig., ODHNER 599.

†*Terebellum (Seraphs) pisciforme*, *T. (Mauryna) costatum*, spp. n. Eocene Dutch E. Indies, MARTIN Wetens. Meded. Mijnb. Weltevreden 18 1931 pp. 37, 38 figs.

†*Tibia samanaensis* sp. n. Tertiary India, Cox Mem. Geol. Surv. India (N.S.) 15 p. 161 pl. xviii f. 14.

*Trichosirius octocarinatus* sp. n. (Lippistidae) off Bounty Islds., POWELL Rec. Canterbury (N.Z.) Mus. 3 p. 376 f. 5.

†*Tropicolpus* gen. n. of Turritellidae with type *Turritella albolapis* Finlay (= *concava* Hutton) Miocene N.Z., *T. milleri*, *luteolapis* spp. n. Oligocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 pp. 93, 94 figs.

*Turritella nana*, GRIFF 335.

*Turritella communis*, LÖNNBERG 519.

†*Turritella graysonensis*, *worthensis* spp. n. Shale and Ironstone Texas, ADKINS Bull. Univ. Texas 1856 1918 pp. 140, 142 pl. x ff. 42, 43. *T. daviesi*, *lahirii* spp. n. Tertiary India, Cox Mem. Geol. Surv. India (N.S.) 15 pp. 152, 153, pl. xvii ff. 12–16, 17.—*T. harnaiensis* sp. n. Lower Ghazij Shale, Baluchistan, Cox Tr. R.S. Edin. 57 1 p. 48 pl. i ff. 4, 5.—*T. Gault* India, Cox 199.—*T. (Haustator) bironensis* sp. n. Eocene France, DOUVILLÉ & O'GORMAN Bull. Soc. géol. Fr. 29 6–7 p. 372; pl. xxxi ff. 5–9.—*T. geinitzi*, GRAHLE 329.—*T. machapoorensis* *guarirensis*, *m. paraganensis*, *m. wiedenmayeri* subspp. n.

Miocene and Oligocene Venezuela, HODSON Bull. Amer. Paleont. 16 60 pp. 9, 10 (103-4).—*T. pontoni* sp. n. *T. cookei gladeensis* subsp. n. Tertiary S. Florida, MANSFIELD Tr. U.S. N. Mus. 79 pp. 6, 7 pl. ii f. 4, 5, 7; 1, 2, 3.—*T. chira* sp. n. Eocene Peru, OLSSON Bull. Amer. Paleont. 17 62 p. 67 pl. xii ff. 1-4.—*T. meroensis, salchia, galvesia, caleta*, spp. n. Oligocene Peru, OLSSON Bull. Amer. Paleont. Ithaca 17 63 pp. 76-79 pls. xii, xiii.—*T. nipponica*, SAHEKI 756.—*T. variata*, WOODRING 962.

Turritellidae, COTTON & GODFREY 190.

Vermetidae, COTTON & GODFREY 190.

*Vermetus planorbis*, KING & PING 448.

†*Vermetus harrguensis* sp. n. Tertiary India, COX Mem. Geol. Surv. India (N.S.) 15 p. 151 pl. xx ff. 15 a-b.

*Xenophora calculifera* Reeve [KURODA] Venus ii p. 318 480.

†*Zeacolpus fyfei, procellosus* spp. n. Oligocene and Miocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 pp. 91, 92 figs.—*Z. (Stiracolpus) hawraensis* sp. n. (Turritellidae) Pliocene N.Z., POWELL Rec. Auck. Inst. Mus. 1 p. 101 f. 7.

# **HIPPONYCIDAE, CALYPTRAEIDAE, CAPULIDAE, VANIKORIDAE, LAMELLARIIDAE, NATICIDAE.**

†Amaltheidae, COHEN 173.

*Amathinoidas [Amathinoides]* Capulidae, THIELE Handb. 1 p. 246.

†*Amaurellina noeltingi* sp. n. Lower Ghazij Shale India; COX Trans. R. Soc. Edin. 57 1 p. 41 pl. i f. 10 a-b.

*Amauropsella cipliyensis* sp. n. Poudingue and Tuffeau Belgium, VINCENT Mem. Mus. N.H. Belg. 46 p. 24 pl. i f. 12 & text-fig.

†*Amauropsis pecosensis* sp. n. Cretaceous Texas, ADKINS Bull. Univ. Texas, Austin 2338 1929 p. 179 pl. ii ff. 8-9.

†*Ampullella* "nom. n." p. 38, gen. n. of *Ampullospiridae*, type *Ampullaria depressa* Lk., *A. nuttalli* sp. n., COX Tr. R. Soc. Edin. 57 1 p. 41 pl. i f. 14 a-b.

†*Ampullina bravoensis* sp. n. Oligocene Peru, OLSSON Bull. Amer. Paleont. Ithaca 17 63 p. 71, pl. ii f. 3, 7.

†*Ampullospiridae*, COX 203.

*Berthella plumula* fig., ODHNER 599.

*Calyptraea capensis* sp. n. S.A., TOMLIN Ann. Natal Mus. 6 3 1931 p. 428 pl. xxxiii f. 6.

Capulidae, ANON 16.

*Capulus hungaricus*, LÖNNBERG 519.

†*Capulus (Pileopsis)* sp. fig., REED 716.

*Crepidula* (digestion), YONGE 972.

†*Crepidula jimboana* sp. n. Neogene Japan, YOKOYAMA J. Fac. Sci. Univ. Tokyo 3 1931 p. 194 pl. xi f. 1.

†*Diplodon colhuapensis* var. *pehuenchensis* var. n., *bodenbenderi* sp. n. Rio Negro, DOELLO-JURADO Boll. Acad. Nac. Cien. Córdoba Buenos Aires 1927 30 pp. 410, 411 fig.

*Ectosinum paruloconvexum* gen. et sp. n., IREDALE Rec. Aust. Mus. 18 4 p. 216 pl. xxiii f. 16.

†*Euspira roei* sp. n. Tertiary India, COX Mem. Geol. Surv. India (N.S.) 15 p. 169 pl. xix ff. 4 a-c.

†*Euspirocrommium conicum* sp. n. Tertiary India, COX Mem. Geol. Surv. India (N.S.) 15 p. 174 pl. xix ff. 3 a-c.

†*Friginatica marshalli* sp. n. Miocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 p. 101 figs.

Galeridae, ANON. 16.

*Gennaeosinum intercisum* sp. n., IREDALE Rec. Aust. Mus. 18 4 p. 217 pl. xxiii f. 13, 14.

†*Globisinum flemingi* sp. n. (Naticidae) Pliocene N.Z., POWELL Rec. Auck. Inst. Mus. p. 98 f. 10 A, B.

†*Globularia sulcata* sp. n. Tertiary India, COX Mem. Geol. Surv. India (N.S.) 15 p. 172 pl. xix ff. 1, 2 a-c.

Hipponicidae, GODFREY 319.

†*Hipponix centrifugalis* sp. n. Oligocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 p. 97 figs.

*Mamma mamilla*, KING & PING 448.

*Narica cancellata*, RISBEC 735.

*Natica canariensis* sp. n. Canaries, ODHNER Arch. f. Zool. 23 A 14 p. 14 figs.

†*Natica (Natica) clarki* sp. n. Miocene U.S.A., ETHERINGTON Univ. Calif. Pub. Geol. 20 5 93 f.—*N. janthostoma*,

SAHEKI 756.—*N. klingamanni*, *catantlensis* spp. n. Callovien and Lias, Argentina, WEAVER Mem. Univ. Washington 1 1931 pp. 374, 378, pl. xlii ff. 277–290.—*N. reticulata* sp. n. Oberschlesiens, WIRTH Cbl. min. geol. Paläont. Stuttgart 2 1931 p. 71 fig.—*N. inezana*, WOODRING 962.—*N. kiritaniana* sp. n. Tertiary Japan, YOKOYAMA J. Fac. Sci. Univ. Tokyo Geol. Min. 3 4 p. 201 pl. xii f. 2.

*Nerinatica* subgen. n. of *Natica* type *N. paytensis* sp. n. Eocene Peru, OLSSON Bull. Amer. Paleont. 17 62 pp. 3, 6 pl. 5 f. 3, 6, 7, 9, 11, 12.

†*Pachycrommium indicum* sp. n. Tertiary India, COX Mem. Geol. Surv. India (N.S.) 15 p. 175 pl. xviii ff. 18 a-b.

*Parvisinum dingeldeii* gen. et sp. n., IREDALE Rec. Aust. Mus. 18 4 p. 217 pl. xxiii f. 15.

†*Platyceras nodosum*, *dumosum primævum*, RUEDEMANN & COOK pp. 58, 66, 81 753.

†*Platystoma ventricosa*, RUEDEMANN & COOK p. 58 753.

†*Polinella* subgen. n. of *Polinices* type *Uber obstructus* Marwick Miocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 p. 99.

*Polinices rapulum limi* subsp. n. Panama Bay, PILSBRY Pr. Acad. N.S. Philad. 83 p. 436 text-fig.

†*Polinices mackayi* sp. n. Oligocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 p. 99 fig.—*P. (Neverita) subreclusiana*, *P. (Lunatia) chulucana* spp. n. Oligocene Peru, OLSSON Bull. Amer. Paleont. Ithaca 17 63 p. 68 pl. x ff. 1, 4; 2, 3.—*P. sagamiensis*, SAHEKI 756.

†*Sinum marwicki* sp. n. Tertiary N.Z., LAWS Trans. Proc. N.Z. Inst. 61 3–4 1930 p. 551 pl. lxxxix.—*S. multilineatum peruvianum* var. n. Oligocene Peru, OLSSON Bull. Amer. Paleont. Ithaca 17 63 p. 70 pl. x ff. 5, 6.

*Tanea* gen. n. of *Naticidae* type *Natica zelandica* Q. & G. Recent N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 p. 98.

†*Trochita costellata*, WOODRING 962.

†*Tylostoma ciplyense* sp. n. Poudingue Belgium, VINCENT Mem. Mus. H.N. Belg. 46 p. 25 pl. i f. 13 text-fig.—*T.*

*jaworskii* sp. n. Lower Cretaceous Argentina, WEAVER Mem. Univ. Washington 1 1931 p. 379 pl. xli f. 273; pl. xliii ff. 287, 288.

†*Uberella cicatrix* sp. n. Oligocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 p. 100 figs.

†*Vanikoropsis cassisiana* Gault India, COX 199.

†*Velatella rectistriata* Dyer fig., WARREN 930.

*Velutina velutina*, LÖNNBERG 519.

# CYMATIIDAE, CASSIDIDAE, TONNIDAE, CYPRAEIDAE, ARCHITECTONICIDAE.

†*Amphiperas bullen-newtoni* sp. n. Eocene Peru, OLSSON Bull. Amer. Paleont. 17 62 p. 63 pl. v ff. 17–18.

*Architectonica grandiosa*, *offlexa* spp. n., IREDALE Rec. Aust. Mus. 18 4 pp. 228–229 pl. xxv f. 19, 20; 15, 16.

†*Architectonica mainwaringi* sp. n. Tertiary India, COX Mem. Geol. Surv. India (N.S.) 15 p. 179 pl. xx ff. 1 a-d.—*A. nobilis* Bolten [Roeding] *discus* var. n. Pliocene California, GRANT & GALE Mem. S. Diego Soc. N.H. 1 pp. 13, 786 pl. xxxii f. 27.

†*Austrosassia* gen. n. type *Septa parkinsonia* Perry, FINLAY Trans. Proc. N.Z. Inst 62 1 p. 7.

*Austrosassia procera* nom. n. for *Triton minimus* Hutton, FINLAY Trans. Proc. N.Z. Inst. 62 1 p. 10.

†*Austrotriton morgani* sp. n. Oligocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 p. 103 fig.

†*Boycottia* nom. n. genotype *Donaldia altera* Perner for *Donaldia* Perner 1903 non Alluaud 1898, TOMLIN P.M.S. 19 p. 175.

*Bufonariella* nom. n. [sect. n.] of *Bursa* type *B. (B.) scrobiculator* Burstdae, THIELE Hand. 1 p. 284.

†*Bursa chira yasila* sp. et var. n. Eocene Peru, OLSSON Bull. Amer. Paleont. 17 62 pp. 62, 63 pl. x ff. 3–7, 13.

†*Cassidaria unicarinata* sp. n. Eocene France, DOUVILLÉ & O'GORMAN Bull. Soc. géol. Fr. 29 6–7 p. 358 pl. xxix.

†*Cassidea (Semicassis) anteniana, umbgrovei* spp. n. Eocene Dutch E. Indies, MARTIN Wetens. Meded. Mijnb. Weltevreden 18 1931 pp. 32, 33 figs.



*Cassis*, DAUTZENBERG & DOLLFUS 215.

*Charoniella* sect. nov. of *Charonia* Gistel type *C. subdistorta* (Lk.) Cymatiidae, THIELE Handb. 1 p. 283.

*Cymbiolista hunteri* sp. n., IREDALE Rec. Aust. Mus. 18 4 p. 223.

*Cypraea*, DAUTZENBERG & DOLLFUS 215.—GRABAU 324.—*C. arabica*, KING & PING 448.—*C. moneta*, RIESE 733.—*C. loebbeckeana*, *gemma*, *rota*, SCHILDER 767.

†*Cypraea carolinensis floridana* subsp. n. Tertiary S. Florida, MANSFIELD Pr. U.S. N. Mus. 79 p. 6 pl. i f. 2, 6, 7.—*C. (Cyprædia) chira* sp. n. Oligocene Peru, OLSSON Bull. Amer. Paleont. Ithaca 17 63 p. 93 pl. xvii ff. 9, 13.

†*Cyprædia* [vide etiam *Cypraea*] *hyderabadensis* sp. n. Laki Sind, COX Tr. R.S. Edin. 57 1 p. 53 pl. ii ff. 5a, b, c.

Cypræidae, M. & F. SCHILDER 768.

*Diminovula cavanaghi* sp. n., IREDALE Rec. Aust. Mus. 18 4 p. 222 pl. xxii f. 13, 14.

†*Discotectonica* subgen. n. of *Architectonica* with *Architectonia* (sic) (*Discotectonica*) *seniscula* sp. n. Oligocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 p. 101 figs.

*Distorsio francesae* sp. n., IREDALE Rec. Aust. Mus. 18 4 p. 213 pl. xxiii f. 2.

†*Distortio clathratus, decussatus*, RUTSCH 755.

*Dolichupis acutidentata*, SCHILDER & TOMLIN 769.

*Doliopsis crosseana*, COEN 170.

*Dolium galea*, SCHREIBER 780.

*Dulcerana* gen. n. type *Ranella granifera* Lk., IREDALE Rec. Aust. Mus. 18 4 p. 213.

*Ellatrivia* gen. n. type *Trivia merces* Ired. *E. (merces) addenda* "sp. n.," IREDALE Rec. Aust. Mus. 18 4 p. 221.

†*Ecocypraea cotteri* sp. n. Tertiary India, COX Mem. Geol. Surv. India (N.S.) 15 p. 177 pl. xix ff. 7 a-d, 8 a-d.

*Erosaria nashi, percomis* spp. n., IREDALE Rec. Aust. Mus. 18 4 p. 219 pl. xxiv f. 5, 6, 11, 12.

*Erronea fimbriata subcoerulea* subsp. n. Aden. M. & F. A. SCHILDER Bull. Soc. zool. Fr. 56 211.—*E. fimbriata*, SCHILDER 767.

†*Euomphalus simuloides, mongolicus* spp. n., GRABAU Nat. Hist. Central Asia, pp. 352-353 pl. xxxiv f. 6 a-c, f. 7 a-b, 8 a-b.

†*Eutritonium (Sassia) rutoti* sp. n. Poudingue Belgium, VINCENT Mem. Mus. N.H. Belg. 46 p. 44 pl. ii f. 7 text-fig.

*Ficus margaretæ* sp. n., IREDALE Rec. Aust. Mus. 18 4 p. 216 pl. xxiii f. 4.

†*Ficus (Trophosycon) ocoyana* Conrad *ruginodosa*, F. (T.) o. *contignata*, F. (T.) *clallamensis* Weaver *nodibulbosa* vars. n. Pliocene, GRANT & GALE Mem. S. Diego Soc. N.H. 1 pp. 13, 746-751 pl. xxix ff. 2 a-b; pl. xxx ff. 5, 10 a-b.—*F. chiraensis, woodringi* spp. n. Oligocene Peru, OLSSON Bull. Amer. Paleont. Ithaca 17 63 pp. 97, 98 pl. xviii.

*Fossatrivia* type *Trivia caelatura* Hed., IREDALE Rec. Aust. Mus. 18 4 p. 222.

†*Galeodea fax, rex, apta* spp. n. Oligocene Washington, TEGLAND Univ. Calif. Pub. Geol. 19 18 1931 pp. 410, 413, 415 pls. lix, lx, lxiii.

†*Gisortia thomasi* sp. n. Eocene Peru, OLSSON Bull. Amer. Paleont. 17 62 p. 64 pl. viii ff. 1, 2, 7.

*Gratiadusta vaticina* sp. n., IREDALE Rec. Aust. Mus. 18 4 p. 219 pl. xxiv f. 11, 12.

*Gyrineum pacator* sp. n., IREDALE Rec. Aust. Mus. 18 4 p. 214.

*Lachryma bisinventa* sp. n., IREDALE Rec. Aust. Mus. 18 4 p. 223 pl. xxii f. 16.

†*Morum (Oniscidea) peruvianum chiraense, dolioides*, M. (*Herculea*) *charanalense*, spp. n. Oligocene Peru, OLSSON Bull. Amer. Paleont. Ithaca 17 63 pp. 95, 97 pl. xvii.

*Mystaponda orcina* sp. n., IREDALE Rec. Aust. Mus. 18 4 p. 220 pl. xxiv f. 9, 10.

*Neosimnia spelta senegalensis* subsp. n. Senegal, SCHILDER Bull. Soc. Zool. Fr. 56 p. 367 f.

*Notocypraea (bicolor) eniblema* sp. n. N. (*piperita*) *dissecta* sp. n., IREDALE Rec. Aust. Mus. 18 4 p. 220 pl. xxiv f. 3, 4, 7, 8.

*Ovatipsa* subgen. n. type *Cypraea chinensis* Gmel., IREDALE Rec. Aust. Mus. 18 4 p. 219 pl. xxiv f. 19, 20.

*Parvitonna perselecta* gen. et sp. n.,  
IREDALE Rec. Aust. Mus. 18 4 p. 216  
pl. xxiii f. 17.

*Pedicularia subtilis* sp. n. Réunion,  
SCHILDER J. Conch. Lond. 19 168 f.

*Pediculariella dautzenbergi* sp. n.  
Celebes, SCHILDER J. Conch. Lond. 19  
167 f.

*Pellasinia* gen. n. type *Ovulum*  
*angasi* Rve., IREDALE Rec. Aust. Mus.  
18 4 p. 222.

*Philippia manifesta, stipator*, spp. n.,  
IREDALE Rec. Aust. Mus. 18 4 p. 229  
pl. xxv f. 19, 20; 17, 18.—*P. hybrida*,  
*pseudopespectiva* figs., ODHNER 599.

†*Pirula exporrecta* sp. n. Eocene  
Dutch E. Indies, MARTIN Wetens.  
Meded. Mijnb. Weltevreden 18 1931  
p. 34 fig.—*P. (Urosyca) bicarinata cipy-*  
*ensis* var. n.? Taffeau Belgium, VIN-  
CENT Mem. Mus. N.H. Belg. 46 p. 46  
pl. ii f. 9 text-fig.

†*Plesiotriton paytensis* sp. n. Eocene  
Peru, OLSSON Bull. Amer. Paleont. 17  
62 p. 60 pl. x ff. 8, 10, 11.

*Primovula beckeri tropica* subsp. n.  
S. Africa, *P. dautzenbergi* sp. n. China,  
SCHILDER Bull. Soc. Zool. Fr. 56 p. 364,  
366 figs.

*Procalpurnus* sect. n. of *Calpurnus*  
type *C. lacteus* Lk. Amphiperasidae,  
THIELE Handb. d. Syst. Weich. 1 pt. 1  
1929 p. 272.

†*Protocypraea kohatica* sp. n. Tertiary  
India, COX Mem. Geol. Surv. India  
(N.S.) 15 p. 178 pl. xix ff. 5 a-d, 6.

*Protopirula* subgen. n. of *Pirula* type  
*capensis*, RENNIE Ann. S. Af. Mus. 28  
1930 p. 222 (vide p. 68 Zool. Rec. 1930).

†*Pseudomalaxis hannonicus* sp. n.  
Tuffeau Belgium, VINCENT Mem. Mus.  
N.H. Belg. 46 p. 39 pl. ii f. 2 text-fig.

*Pusula (Niveria) problematica* sp. n.  
Vorderindiens, SCHILDER Zool. Anz. 96  
p. 70 f.—*P. (Cleotrivina) pygmaea* sp. n)  
Anguilla Virgin Ids.—*P. (Cleotrivina).*  
*leucosphaera* nom. n. for *globosa* auct.  
pars (Dall, Maury, etc.) non Sow. syn.  
*subrostrata* var. *alba* (Krebs) Roberts,  
SCHILDER Zool. Anz. 96 p. 71 f.

*Quimalea pomum macgregori* subsp. n.,  
IREDALE Rec. Aust. Mus. 18 4 p. 215  
pl. xxiii f. 22.

*Ranella gigantea*, DESPOTT 225.—*R.*  
*gyrina, granifera*, RISBEC 735.

†*Semisolarium moniliferum* Gault  
India, COX 199.

†*Solarium (Climacopoma) incisum*  
sp. n. Eocene Dutch E. Indies, MARTIN  
Wetens. Meded. Mijnb. Weltevreden  
18 1931 p. 42 fig.

*Solatisonax injussa* gen. et sp. n.,  
IREDALE Rec. Aust. Mus. 18 4 p. 229  
pl. xxv f. 7, 8.

*Talostolida* gen. n. type *Cypraea teres*  
Gmel., IREDALE Rec. Aust. Mus. 18 4  
p. 219.

*Thelxinovum molleri* gen. et sp. n.,  
IREDALE Rec. Aust. Mus. 18 4 p. 220  
pl. xxiv f. 17, 18.

*Trivellona excelsa* gen. et sp. n.,  
IREDALE Rec. Aust. Mus. 18 4 p. 221  
pl. xxiv f. 13, 14.

*Trivia europea*, LEBOUR 512.—LÖNN-  
BERG 519.—*T. (Niveria) hybrida* sp. n.  
*T. (Pusula) sanguinea circumdata* subsp.  
n., F. A. SCHILDER Archiv. f. Moll. 63  
1 pp. 42, 43 f.—*T. pulex africana*  
subsp. n. unterscheidet sich von *pulex*  
Dillw. s. str. wie folgt, F. A. SCHILDER  
Zool. Anz. Leipzig 96 p. 69.

*Tritonium nodiferum*, SCHREIBER 780.

*Umbilia (hesitata) howelli* nov., IRE-  
DALE Rec. Aust. Mus. 18 4 p. 220  
pl. xxiv f. 1, 2.

*Volva volva cumulata* subsp. n.,  
IREDALE Rec. Aust. Mus. 18 4 p. 222.

*Xenogalea nashi* sp. n., *thomsoni*  
*palinodia* subsp. n., IREDALE Rec.  
Aust. Mus. 18 4 p. 215 pl. xxiii f. 20.

#### PTENOGLOSSA.

#### IANTHINIDAE, EPITONIIDAE.

†*Aclisina breva, parallela* spp. n.  
Limestone U.S.A., SAYRE Kansas  
Univ. Bull. 19 p. 150 pl. xvii f. 4, 1.—  
*Aclisina minuta, formosa, stevensana,*  
*conditi, swallowiana robusta*, KNIGHT  
455.

†*Bulimorpha* [non Hall 1857] *meeki*  
nom. n. for *Actaeonina minuta* Meek &  
Worthen non Stevens *B. turnerensis*  
sp. n. Limestone U.S.A., SAYRE Kansas  
Univ. Bull. 19 pp. 146–147 pl. xvi  
f. 6–7.

*Epitonium* [vide etiam *Scala* et  
*Scalaria*] *fallaciosum*, STRONG 829.—*E.*  
*fallaciosum*, W. P. WOODRING 960.

†*Epitonium* (*Acrilla*) *patense* sp. n. Eocene Peru, OLSSON Bull. Amer. Paleont. 17 62 p. 70 pl. iv ff. 14-16.—*E. chamberlaini*, *raveneli*, *charlestonensis*, *E. (Asperoscala) cooperensis*, *E. (Stenorhytis) subexpansum* spp. n. S. Carolina, C. W. JOHNSON Nautilus 45 1 pp. 6-9.

*Janthina fragilis*, GLIESCH 318.

†*Kapua* subgen. n. of *Turriscula* with type *T. powelli* sp. n. Miocene, N. Zealand, MARWICK Paleont. Bull. N.Z. 13 1931 p. 102 fig.

*Pherusiana* [*Pherusina* Norman] Acrididae, THIELE Handb. 1 p. 226.

†*Scala* [vide etiam *Epitonium*] (*Acrilla*) *jogjacartensis* Eocene Dutch E. Indies, MARTIN Wetens. Meded. Mijnb. Weltevreden 18 1931 p. 43 fig.

*Scalaria* [vide etiam *Epitonium*] *clathrus*, LÖNNBERG 519.

†*Streptacididae* fam. new for *Aclisina* and *Streptacis*, KNIGHT J. Paleont. Sharon Mass. 5 1 pp. 7, 8.

†*Streptacis* [gen. n. Meek 1871] *scalpta*, *crenimarginis* *meeki* spp. n. Labetta shale Pennsylvania, KNIGHT J. Paleont. Sharon Mass. pp. 12-14 pl. ii.

#### GYMNOGLOSSA.

##### PYRAMIDELLIDAE, STROMBIFORMIDAE.

*Bacteridium* subgen. n. of *Eulimella* (Fbs.) Gray type *E. praeclara* Pyramidellidae, THIELE Handb. 1929 1 p. 236 fig.

*Ebalina* sect. n. of *Eulimella* (Fbs.) Gray type *E. monolirata* Folin Pyramidellidae, THIELE Handb. 1 p. 236 fig.

†*Eulima incondita* sp. n. Oligocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 p. 109 fig.

*Euparthenia* nom. n. for *Parthenia* Lowe 1840 pars, non Rob-Desvoidy 1830 type *K[leinella] bulinea* (Lowe) Pyramidellidae, THIELE Handb. 1 p. 233.

†*Melanella patutakiensis*, *tutamoensis* spp. n. Oligocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 p. 109, 110 figs.

†*Odontostomia vandijski*, *jogjacartensis*, spp. n. Eocene Dutch E. Indies, MARTIN Wetens. Meded. Mijnb. Weltevreden 18 1931 p. 43 figs.

*Stylifer apiculatus*, RISBEC 735.

*Stylopyramis* gen. n. Pyramidellidae type *S. cerithioides* sp. n., THIELE Handb. 1 p. 236 fig.

†*Syrnola mestayerae*, *vixornata*, *waipaea*, *lutosa*, *waihoraensis*, *ancisa*, *arowhana* spp. n. Oligocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 pp. 105-106 figs.

*Turbonilla* (*Chemnitzia*) *aoteana* sp. n. New Zealand, POWELL Trans. Proc. N.Z. Inst. 61 3-4 1930 p. 545 pl. lxxxvii.

*Turbonilla* (*Pyrgolampros*) *strongi* sp. n. Calif., WILLETT Nautilus 45 p. 67 fig.

†*Turbonilla* (*Pyrgolampros*) *rockensis* sp. n., Miocene U.S.A., ETHERINGTON Univ. Calif. Pub. Geol. 20 5 90 f.—*T. (Chemnitzia) haugrandis* sp. n. Oligocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 p. 108 fig.—*T. ngatapa*, *waikura*, oligocene; *duplicaria* Miocene spp. n. N.Z.; *T. (Pyrgiscus) intexta*, *extenuata*, *crebricostata*, *macphersoni* spp. n. Oligocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 pp. 106, 107 figs.

†*Waikura* gen. n. of Pyramidellidae, type *W. torques* sp. n. with *W. clivosa* sp. n. Oligocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 p. 109 figs.

#### STENOGLOSSA.

##### (a) RHACHIGLOSSA.

##### CORALLIOPHILIDAE, BUCCINIDAE, NASSARIIDAE, MURICIDAE, THAIDIDAE, PYRENIDAE.

*Acanthina* "[= *Monoceros*]" *lugubris* fig., VIGNON 906.

†*Acanthina* (*Chorus*) *meroensis*, *sula* spp. n. Oligocene Peru, OLSSON Bull. Amer. Paleont. Ithaca 17 63 pp. 106, 107 pl. xviii.

*Anachis tabogaensis*, *dalli* spp. n. Panama, BARTSCH Proc. U.S. Nat. Mus. 79 15 pp. 1, 2 pl. i f. 1, 2.

*Ancistrolepis* Japanese spp. with *fujitai*, sp. n. *magnus* *uritai* subsp. n. Japan, KURODA Venus 2 p. 222 figs.

*Appisania* sect. n. of *Metula* H. & A. Ad. type *M. montrouzieri* Crosse, THIELE Handb. 1 p. 314.

†*Austrofusus tuberculatus*, *A. (Nassicolor) cingulifer*, *A. (Neocola) demissus* spp. n. Oligocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 pp. 113, 114 figs.

†*Austrosipho* (*Verconella*) *haweraensis* sp. n. (Buccinulidae) Pliocene N.Z., POWELL Rec. Auck. Inst. Mus. 1 p. 104 f. 28, 29.

†*Buccinulum ectypum* sp. n. Oligocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 p. 113 fig.

*Buccinum (Mada) liocephalum* sp. n. N. Africa, PALLARY Bull. Trav. Sta. Aquicult Alger. 1930 1 p. 47 fig.—*B. undatum strandi* var. n. Iceland, H. SCHLESCH Archiv. f. moll 63.4/5 p. 133 pl xii f. 5–6.—*B. undatum*, EHRENBERG 245.—LÖNNBERG 519.—MAYER 551.

†*Bullia rhodostoma*, ABEL 2.

*Centrifuga* subgen. n. of "*Purpura*" with type *Murex centrifuga* Hinds, GRANT & GALE Mem. S. Diego Soc. N.H. 1 pp. 12, 706.

*Chicoreus sinensis*, scaber as enemy of oyster, KINOSHITA 449.

*Chlanidotella* subgen. n. of *Thalassoplanes* Dall type *T. modesta* Martens Buccinidae, THIELE Handb. 1 p. 317.

†*Chrysodomus arthriticus*, pericochlion, SAHEKI 756.

*Clinopogma* sec. n. of *Neptunea* with type *Buccinum unicum* Pilsbry, GRANT & GALE Mem. S. Diego Soc. N.H. 1 pp. 12, 660.

*Columbella versicolor*, KING & PING 448.—*C. versicolor*, RISBEC 735.—*C. rustica*, TUZET 892.—*C. fulgurans fulginosa* var. n. Kavebaai, DUPUIS Bull. Mus. N.H. Belg. 7 p. 4 f.

†*Columbella songoënsis* sp. n. Eocene Dutch E. Indies, MARTIN Wetens. Meded. Mijnb. Weltevreden 18 1931 p. 27 fig.

Columbellidae, LOWE 522.

†*Cominella nanggulanensis* sp. n. Eocene Dutch E. Indies, MARTIN Wetens. Meded. Mijnb. Weltevreden 18 1931 p. 23 fig.—*C. (Acominia) crassinodosa* (*C. (Paracominia) macphersoni* sp. n. Oligocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 pp. 116, 117 figs.—*C. praecedens*, *aturensis* spp. n. Tertiary Aquitaine, PEYROT Act. Soc. Lin. Bordeaux 78 p. 214.

†*Concholepas peruviana*, KLINGHARDT 454.

*Coralliophila sugimotoi* sp. n. Japan. KURODA Venus 2 6 1931 p. 316.—*C. bracteata* var. *babelis*, ODHNER 599.

†*Cyllene degrangei* sp. n. p. 219, *C. (Cyllenina) ancillariaeformis helvetica* nov. mut. p. 220 *ignorata* sp. n. p. 222,

*vulgatissima* p. 225 sp. n., *v. styliфера*, *v. ovulina* vars. n. p. 227 Tertiary Aquitaine, PEYROT Act. Soc. Lin. Bordeaux 78.

*Cymia berryi* sp. n. Oligocene Peru, OLSSON Bull. Amer. Paleont. Ithaca 17 63 p. 105 pl. xviii f. 6.

†*Cymia buchivacoana* sp. n. Miocene Venezuela, H. K. HODSON Bull. Amer. Paleont. 16 59 p. 38 figd.—*C. cocoditana* sp. n., *buchivacoana cantaurana* subsp. n. Miocene Venezuela, HODSON Bull. Amer. Paleont. 16 60 p. 11 (105) figd.

†*Cyrtochetus chiraensis* sp. n. Oligocene Peru, OLSSON Bull. Amer. Paleont. Ithaca 17 63 p. 103 pl. xiv ff. 10, 14.

†*Dorsanum (Adinus) javanum* sp. n. Eocene Dutch E. Indies, MARTIN Wetens. Meded. Mijnb. Weltevreden 18 1931 p. 27 fig.—*D. merignacense* p. 200 *ruddum* p. 205, *dubium* 206, *gradatum* p. 210 spp. n. *D. aquense pertinax* p. 204 var. n. Tertiary Aquitaine, PEYROT Act. Soc. Lin. Bordeaux 78.

†*Ellicea conformata* sp. n. Miocene N.Z. (Buccinulidae), MARWICK Palaeont. Bull. N.Z. 13 1931 p. 112 fig.

*Engina panamensis*, *tabogaensis* spp. n. Panama, BARTSCH Proc. U.S. Nat. Mus. 79 15 1931 pp. 7, 8 pl. i f. 7, 8.

*Eosipho* subgen. n. of *Sipho* Brug. type *S. smithi* Schepm., THIELE Handb. 1 p. 307.

*Ergalatax recurrens* gen. et sp. n., IREDALE Rec. Aust. Mus. 18 4 p. 231 pl. xxiii p. 10.

*Euthria cornea*, SCHREIBER 780.

†*Euthria cornea*, *obesa*, *intermedia*, also *E. raulini*, *saucatsensis*, *evoluta* Neogene France, PEYROT Act. Soc. Lin. Bordeaux 79 Sup.—*E. raulini*, *saucatsensis* = *evoluta*, *gallica*, *nodulosa*, *neuvillei*, *varicigera*, *minuscule*, spp. n. Néogene France, PEYROT Act. S. Lin. Bordeaux 79 Sup. Op. 14–26 figd.

*Exilioidea* gen. n. of Neptuneidae with type *Chrysodomus rectirostris* Carpenter California, GRANT & GALE Mem. S. Diego Soc. N.H. 1 pp. 12, 665 pl. xxviii f. 5.

*Forreria* "[= *Chorus*]" *belcheri* fig., VIGNON 906.

†*Galeodea* Link (Besch. Rostock p. 113) *wylliei* sp. n. Eocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 p. 105 fig.

*Gracilimurex* subgen. n. of *Murex* type *M. (G.) bicolor* sp. n., THIELE Handb. 1 p. 289.

†*Ilyanassa (Paranassa) aratum deleonensis* var. n. Pliocene Florida, TUCKER Proc. Indiana Acad. Sci. 40 1931 p. 375.

*Japelon* Japanese spp. with *Kino-shitai* sp. n. Japan, KURODA Venus 2 p. 225 fig.

†*Latrunculus [Babylonia] (Peridipsaccus) eburnoides, brugadinus*, PEYROT 649.

*Macroniscus* subgen. n. of *Macron* H. & A. Adams type *M. lividus* A. Ad. [figd.], THIELE Handb. 1 p. 316.

*Mada*, PALLARY 625.

†*Magilus*, LECOINTRE 513.

†*Metula peruviana* sp. n. Oligocene Peru, OLSSON Bull. Amer. Paleont. Ithaca 17 63 p. 104 pl. xviii.

†*Mirua* subgen. n. of *Hima* (Nassariidae) type *Nassa socialis* Hutton Miocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 p. 115.

†*Mitrella grandior* sp. n. Pliocene California, GRANT & GALE Mems. S. Diego Soc. N.H. 1 pp. 12, 696 pl. xxvi f. 46.

†*Molopophorus anglonana matthewi* var. n. Miocene U.S.A., ETHERINGTON Univ. Calif. Pub. Geol. 20 5 98 f.

*Murex*, GRABAU 324.—*M. trunculus*, JULLIEN & MORIN 429, 430.—*M. crenifer*, RISBEC 735.—*M. trunculus, brandaris, SCHREIBER 780.—M. tarentinus, edwardsi, brandaris, trunculus, TUZET 892.—M. (Phyllonotus) radix, M. (Ceratostoma) nuttalli, M. (Pteronotus) hemitripterus, fauroti, occa. fig., VIGNON 906.*

†*Murex trunculus*, BOLKAJ 110.—*M. (Phyllonotus) wadaii, sandersoni* spp. n. Tertiary India, COX Mems. Geol. Surv. India (N.S.) 15 pp. 189, 190 pl. xx ff. 3, 4 a, b.—*M. recurvirostris quirosensis* subsp. n. *M. venezuelanus* sp. n. Oligocene and Miocene Venezuela, F. HODSON Bull. Amer. Paleont. 16 59 p. 37 figd.—*M. scorpionius* sp. n. Eocene Peru, OLSSON Bull. Amer. Paleont. 17 62 p. 58 pl. xi ff. 3, 4, 10.

†*Murexsul dilucidus* sp. n. Miocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 p. 117 fig.

†*Muricopsis bicatenatus, arntzenii, jogjacartensis, vandervlerki* spp. n. Eocene Dutch E. Indies, MARTIN Wetens. Meded. Mijnb. Weltevreden 18 1931 p. 28 figs.

*Murithais* subgen. n. of *Chicoreus*, type *Murex trunculus* L., GRANT & GALE Mems. S. Diego Soc. N.H. 1 pp. 12, 729.

*Nassa* [vide etiam *Nassarius*] *reticulata*, BORCEA 112.—*N. nodifera, coelata, gemmulifera*, KING & PING 448.—*N. reticulata, incrassata*, LÖNNBERG 519.—*N. nitida*, TUZET 892.

†*Nassa [Nassarius] asperula, serraticosta, semistriata*, PATRINI 634.—*N. PAVLOVIC 635.—N. iwakiana* sp. n. Tertiary Japan, YOKOYAMA J. Fac. Sci. Univ. Tokyo Geol. Min. 3 4 p. 200 pl. xii f. 7, 8.

*Nassarius reticulatus, incrassatus, LEBOUR 511.—N. fenestratus, TOMLIN 869.—N. (Zeuxis) isseli, (Hima) beccarii* spp. n. Red Sea, BISACCHI Ann. Mus. Civ. Stor. Nat. Genova 55 pp. 15, 19.

*Naytiopsis* subgen. n. of *Nassa* type *N. granum* Lk., THIELE Handb. 1 p. 324.

†*Neptunea despecta*, GRÖNLIE 337.—*N. diminuta* sp. n. Miocene U.S.A. ETHERINGTON Univ. Calif. Pub. Geol. 20 5 102.

†*Orania bearnensis* sp. n. Tertiary Aquitaine, PEYROT Act. Soc. Lin. Bordeaux 78 p. 245.

†*Pangoa* gen. n. Muricidae type *P. mira* sp. n. Oligocene-Miocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 p. 119 figs.

*Peridipsacus [Peridipsaccus Rovereto]* THIELE Handb. 1 p. 312.

†*Peritrophon* gen. n. of Muricidae type *P. decoratus* Oligocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 p. 119 fig.

†*Phos buchivacoensis, codorensis, venezuelensis, democraciensis, falconensis, spp. n. venezuelensis riocodorensis, maracaibensis wiedenmayeri, tuberaensis urumacoensis* subsp. n. (*Antilophos*) *cocoditoensis, (A.) paraganensis* spp. n. Miocene Venezuela, F. HODSON Bull. Amer. Paleont. 16 59 pp. 31–35 figd.—*P. polygonum acarinata* var. n. Tertiary Aquitaine, PEYROT Act. Soc. Lin. Bordeaux 78 p. 230.

*Pisania maculosa*, TUZET 892.



†*Pisanianura aturensis* sp. n. p. 249.  
*benoisti, degrangei*, spp. n. pp. 250–251  
 Tertiary Aquitaine, PEYROT Act. Soc.  
 Lin. Bordeaux 78.

*Plicarularia* sect. n. of *Nassa* Lk.  
 type *N. thersites* Brug., THIELE Handb.  
 1 p. 324.

*Polia orbignyi*, PARAT 629.—*P.*  
*orbignyi*, TUZET 892.

†*Polia sillapatensis*, *P.* (*Endopachy-*  
*chilus*) *purpuroides* spp. n. Eocene Peru,  
 OLSSON Bull. Amer. Paleont. 17 62 p. 54  
 pl. xi ff. 1, 2, 9.—*P. huitra* sp. n. Oligo-  
 cene Peru, OLSSON Bull. Amer. Paleont.  
 Ithaca 17 63 p. 100 pl. xviii f. 9.

*Profundinassa* subgen. n. of *Nassa*  
 Lk. type *N. babylonica* Watson (fig.),  
 THIELE Handb. 1 p. 323.

*Proneritula* sect. n. of *Nassa* Lk. type  
*N. westerlundi* Brus., THIELE Handb. 1  
 p. 324.

*Pseudoliva plumbea* fig., VIGNON 906.

†*Pseudoliva coronaria* sp. n. Eocene  
 Peru, OLSSON Bull. Amer. Paleont. 17  
 62 p. 57 pl. vi ff. 3, 7.

*Purpura* [*Thais*] *lapillus*, trail, RAY-  
 MOND 713.

*Pyrene retiaris* sp. n. S.A., TOMLIN  
 Ann. Natal Mus. 3 3 1931 p. 436 pl.  
 xxxiii f. 7.

*Scaofax mollerii* gen. et sp. n., (Bucci-  
 nidæ) IREDALE Rec. Aust. Mus. 13 4  
 p. 231 pl. xxiii f. 8.

†*Searlesia dira* Rve. *miocenica* subsp.  
 n. Miocene U.S.A., ETHERINGTON Univ.  
 Calif. Pub. Geol. 20 5 p. 103 f.

†*Semityphis incisus* gen. et sp. n.  
 Eocene Dutch E. Indies, MARTIN  
 Wetens. Meded. Mijnb. Weltevreden 18  
 1931 p. 32 fig.

*Sipho* [vide etiam *Colus*] *islandicus*  
*haasi* var. n. Iceland, H. SCHLESCH  
 Archiv f. Moll. 63 4/5 p. 133 pl. xii f. 1–2.

†*Siphonalia* (*Pseudoneptunea*) *nuntia*  
 sp. n. Eocene Peru p. 10 ff. 14, 15.—*S.*  
*belenensis, tessaria* spp. n. Oligocene  
 Peru pp. 102–103, pl. xviii, OLSSON  
 Bull. Amer. Paleont. Ithaca 17 63.

*Solenosteira fusiformis*, LAMY 504.

†*Solenosteira falconensis urumacoensis*  
 subsp. n. Miocene Venezuela, HODSON  
 Bull. Amer. Paleont. 16 60 p. 11 figs.

†*Striomitrella* sec. n. Columbelloidæ,  
 type *Buccinum sulcatum* J. Sow.  
 Pliocene, GRANT & GALE Mem. S.  
 Diego Soc. N.H. 1 pp. 12, 698.

†*Strombina colinensis, falconensis,*  
*quirosana* spp. n. Oligocene and Miocene  
 Venezuela, H. K. HODSON Bull. Amer.  
 Paleont. 16 59 pp. 27–29 figd.—*S.*  
*elegans, laevistriata*, spp. n. Miocene  
 Panama, *S. tenuilineata* n. n. p. 250,  
 LI Bull. Geol. Soc. China 9 3 p. 268 pl. vi  
 ff. 51, 52.

*Syntagma crassior* sp. n. Canaries,  
 ODHNER Arkiv. Zool. 23 A 14 p. 20 fig.

*Thais haemastoma*, BURKENROAD 143.  
 —*T.* as enemies of oyster, KINOSHITA  
 449.—*T.* (*Mancinella*) *lata, siro* spp. n.  
 Japan, KURODA Venus Kyoto 2 6 1931  
 pp. 314, 315 pl. i f. 8–11.

†*Thais* (*Nucella*) *elsmerensis* sp. n.  
 Pliocene California, GRANT & GALE  
 Mem. S. Diego Soc. N.H. 1 pp. 12, 719  
 pl. xxxii f. 13.

†*Tritiaria chira, sullana*, spp. n.  
 Oligocene Peru, OLSSON Bull. Amer.  
 Paleont. Ithaca 17 63 pp. 99–100 pl. xxi.

†*Tritonidea* (*Cantharus*) *curta* sp. n.  
 Eocene Dutch E. Indies, MARTIN  
 Wetens. Meded. Mijnb. Weltevreden  
 18 1931 p. 26 fig.—*T.* [*Polia*] *aquitani-*  
*ensis* sp. n. p. 237, *stephanensis* sp. n.  
 p. 239, *thebaudei* sp. n. p. 241, *T.*  
 (*Cantharus*) *aturensis merignacensis*  
 spp. n. p. 242–243, PEYROT Act. Soc.  
 Lin. Bordeaux 78.

*Trophon* (*Boreotrophon*) *albospinosus*,  
 sp. n. Calif., WILLETT Nautilus 45 2  
 p. 66 fig.

*Typhis lowei* sp. n. Montijo Bay R.P.,  
 PILSBRY Nautilus 45 p. 72 [to be figd.].

†*Typhis* (*Typhinellus*) *patellifer* sp. n.  
 Eocene Dutch E. Indies, MARTIN  
 Wetens. Meded. Mijnb. Weltevreden 18  
 1931 p. 31 fig.—*T.* (*Levityphis*) *thagus*  
 sp. n. Eocene Peru, OLSSON Bull. Amer.  
 Paleont. 17 62 p. 58, pl. xi f. 6.

*Urosalpinx cinerea*, FEDERIGHI 262,  
 263.—FRASER 284.

†*Verconella finlayi* sp. n. Tertiary  
 N.Z., LAWS Trans. Proc. N.Z. Inst. 61  
 3–4 1930 p. 552 pl. xci.

*Vexillum macfadyeni*, COX 198.

*Xymene contractus*, as enemy of  
 oyster, KINOSHITA 449.

†*Xymenella perornata* sp. n. Oligocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 p. 118 fig.

†*Yasila* type *paytensis* gen. et sp. n. Eocene Peru, OLSSON Bull. Amer. Paleont. 17 62 pp. 3, 59, 60 pl. xi ff. 11, 16, 17, 18. *Y. chiraensis* sp. n. Oligocene Peru, OLSSON Bull. Amer. Paleont. Ithaca 17 63 p. 104 pl. xiv ff. 9, 11.

†*Zelandiella calcarata* sp. n. Oligocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 p. 115 fig.—*Z. pliocenica* sp. n. (Neptuniidae) Pliocene N.Z., POWELL Rec. Auck. Inst. Mus. 1 p. 102 f. 11, 12.

*Zemiropsis* gen. n. for *Eburna* [Babytonia] *papillaris* Sow. placed by the author in Olividae q.v., THIELE Handb. 1 p. 332.

**TURBINELLIDAE, FASCIOLARIIDAE, MITRIDAE, VOLUTIDAE, MARGINELLIDAE, HARPIDAE, OLIVIDAE.**

†*Agasoma* Gabb type *A. sinuatum*, [STILES] 824.

*Alcithoe gravicostata* sp. n. Tertiary N.Z., L. C. KING Tr. Pr. N.Z. Inst. 62 p. 81 f. 6-9.

†*Alcithoe strongi* Oligocene, *conscisa* Miocene, spp. n. N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 pp. 126, 127 figs.

†*Ancilla decipiens*, *pusilla*, *A. (Tortoliva)*, *seminuda*, *papillifera*, spp. n. Eocene Dutch E. Indies, MARTIN Wetens. Meded. Mijnb. Weltevreden 18 1931 pp. 12-14 figs.—*A. (Ancillarina) pananga* sp. n. Eocene Peru, OLSSON Bull. Amer. Paleont. 17 62 p. 41 p. 6 ff. 9, 10.—*A. (Sparella) raulini* sp. n. Tertiary Aquitaine, PEYROT Act. Soc. Lin. Bordeaux 79 Sup. p. 186.

†*Ancillaria* [*Ancilla*] *flexuosa*, GARDNER 302.

†*Athleta* (*Volutocorbis*) *daviesi*, *A. (Volutospina) wynnei* spp. n. Tertiary India, COX Mem. Geol. Surv. India (N.S.) 15 pp. 198, 199, pl. xxi ff. 10 a-c; 7 a-b; 8, 11 a-b.

*Aurinia schmitti* sp. n. Tortugas Florida, BARTSCH J. Wash. Acad. Sci. 21 21 1931 pp. 539-540 figs.

†*Austroharpa* gen. n. type *Harpa pulligera*, *A. tatei* Pliocene S. Australia, FINLAY Trans. Proc. N.Z. Inst. 62 1 p. 14.

†*Austrolithes* gen. n. type *Fusus bubodes* Tate, FINLAY Trans. Proc. N.Z. Inst. 62 1 p. 14.

†*Austromitra caudata* sp. n. Miocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 p. 124 fig.

†*Baryspira brevicula*, *tholiculus* spp. n. Tertiary N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 p. 130 figs.

†*Buccinofusus aquitanicus* sp. n. Neogene France, PEYROT Act. S. L. Bordeaux 79 Sup. p. 69 figd.

†*Conomitra lavelana falconensis*, *weeksii*, var. et spp. n. Miocene Venezuela F. HODSON Bull. Amer. Paleont. 16 59 pp. 43 figs.

*Chiralithes* subgen. n. of *Clavilithes* type *Cl. cynosuris* sp. n. Eocene Peru, OLSSON Bull. Amer. Paleont. 17 62 pp. 3, 50.

†*Chiraluta* type *inca* gen. et sp. n. Oligocene Peru, OLSSON Bull. Amer. Paleont. Ithaca 17 63 p. 112 pl. xx.

†*Clavilithes* (*Chiralithes*) subgen. n. with type *cynosuris* sp. n. Eocene Peru, OLSSON Bull. Amer. Paleont. 17 62 p. 50 pl. ix ff. 2-5.

†*Conomitra vandervlerki* sp. n. Eocene Dutch E. Indies, MARTIN Wetens. Meded. Mijnb. Weltevreden 18 1931 p. 18 figs.—*C. peyreirensis* sp. n. Tertiary, Aquitaine, PEYROT Act. Soc. Lin. Bordeaux 79 Sup. p. 128.

†*Cryptospira* (*Gibberula*) *degrangei* sp. n. Tertiary Aquitaine, PEYROT Act. Soc. Lin. Bordeaux 79 Sup. p. 166.

*Cymbium* vide etiam *Yetus* 624.

†*Cymbium eocenicum* sp. n. Upper Laki? Hyderabad, COX Tr. R.S. Edin. 57 1 p. 56.

*Deniharpa* gen. n. type *Harpa clathrata* Tate, IREDALE Rec. Aust. Mus. 18 4 p. 230.

†*Dolicholatirus indicus* sp. n. Tertiary India, COX Mem. Geol. Surv. India (N.S.) 15 p. 182 pl. xx ff. 5-8.

†*Dolicholatyrus bironensis* sp. n. Eocene France, DOUVILLÉ & O'GORMAN Bull. Soc. geol. Fr. (4) 29 6-7 p. 353 pl. xxix.

†*Eovasum douvillei* sp. n. Eocene Peru, OLSSON Bull. Amer. Paleont. 17 62 p. 49 pl. viii ff. 4-6.

†*Euthriofusus burdigalensis grateloupi* var. n. Neogene France, p. 59 figd., *E. peyrensis* sp. n. p. 60. PEYROT Act. S.L. Bordeaux 79 Sup.

†*Falsicolus orientalis* sp. n. Miocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 p. 110 fig.

†*Fasciolaria (Pleuroploca) tarbelliana praecedans, t. distracta* vars. n., *F. (P.) sacyi, aquitaniensis* spp. n. Neogene France, PEYROT Act. S. Lin. Bordeaux 79 Sup. pp. 73-77 figs.

†*Fulgur carica, canaliculatum*, RIJLAND 734.

*Fusus*, GRABAU 324.—*F. antiquus* (digestion), YONGE 972.

†*Fusus ickeae, incilifer* spp. n. Eocene Dutch E. Indies, MARTIN Wetens. Meded. Mijnb. Weltevreden 18 1931 p. 20 fig.—*F. aturensis angulosa* var. n. *F. raulini, salomacensis* spp. n. Neogene France, PEYROT Act. S.L. Bordeaux 79 Sup. pp. 46-54 figd.

*Harpa*, DAUTZENBERG & DOLLFUS 215.

†*Harpa myrmia* sp. n. Oligocene Peru, OLSSON Bull. Amer. Paleont. Ithaca 17 63 p. 114 pl. xx f. 7.

†*Hemifusus montensis* sp. n. Xancidae (= Turbinellidae) Tertiary India, Cox Mem. Geol. Surv. India (N.S.) 15 p. 184 pl. xx ff. 9 a-b, 10 a-b.

†*Hiwia* subgen. n. of *Marginella* type *M. (Hiwia) amplificata* sp. n. Oligocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 p. 129 figs.

†*Involuta daviesi* gen. et sp. n. Volutidae ? Kohat Shale N.W. Frontier Province, Cox Tr. R.S. Edin. 57 1 p. 58 pl. ii ff. 2 a, b, c ?, 4.

†*Lamprodomina* subgen. n. of *Olivella* type *Olivella neozelanica* Hutton Pliocene N.Z., MARWICK Paleont. Bull. N.Z. 13 1931 p. 131.

*Latirus (Leucozonina) cingulifera, leucozonialis* figd., VIGNON 906.

†*Latirus quercotillaensis* sp. n. Oligocene Peru, OLSSON Bull. Amer. Paleont. Ithaca 17 63 p. 107 pl. xxi ff. 2, 3.

†*Lathyrus [Latirus] aturensis, peyreirensis, vasconiensis, erinaceus* Neogene France, PEYROT Act. S. Lin. Bordeaux 79 Sup. pp. 78-86 figs.—*L. granifer, compactilis* spp. n. Eocene Dutch E. Indies, MARTIN Wetens. Meded. Mijnb. Weltevreden 18 1931 pp. 21, 22, figs.

*Leucozonina cingulifera, cingulata*, LAMY 502.

†*Lyria samanaensis* sp. n. Tertiary India, Cox Mem. Geol. Surv. India (N.S.) 15 p. 201 pl. xxi ff. 9 a-b.—*L. varicosa, puruensis* spp. n. Eocene Dutch E. Indies, MARTIN Wetens. Meded. Mijnb. Weltevreden 18 1931 p. 16 figs.—*L. busera* sp. n. Eocene Peru, OLSSON Bull. Amer. Paleont. 17 62 p. 46 pl. viii ff. 3-5.—*L. peruviana* sp. n. Oligocene Peru, OLSSON Bull. Amer. Paleont. Ithaca 17 63 p. 111 pl. xix ff. 2, 3.—*L. subharpula aquitanica, picturata primitiva, submitraeformis burdigalica* nov. muts. *L. aturensis, degrangei* spp. n. Tertiary Aquitaine, PEYROT Act. Soc. Lin. Bordeaux 79 Sup. pp. 141-147.

†*Mancorus* type *grabau* gen. et sp. n. Oligocene Peru, OLSSON Bull. Amer. Paleont. Ithaca 17 63 p. 108 pl. xix ff. 1-4.

†*Marginella evax* sp. n. Miocene Panama, LI Bull. Geol. Soc. China 9 3 p. 270 pl. vii f. 58.—*M. waikohuensis, totangiangensis* spp. n. Miocene N.Z. vide etiam *Hiwia* subgen. n., MARWICK Palaeont. Bull. N.Z. 13 1931 p. 129 figs.—*M. (Volvarina) cossmanni, aturensis* spp. n. Tertiary Aquitaine, PEYROT Act. Soc. Lin. Bordeaux 79 Sup. p. 161.

†*Mauia washburnei, chesteri* spp. n. Oligocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 p. 128 figs.

†*Mayeria montensis* sp. n. Poudingue Belgium, VINCENT Mem. Mus. N.H. Belg. 46 p. 47 pl. ii f. 11 and text-fig.

†*Melongena (Pugilina) brevispina* sp. n. Eocene Dutch E. Indies, MARTIN Wetens. Meded. Mijnb. Weltevreden 18 1931 p. 22 figs.—*M. charanalensis* sp. n. Oligocene Peru, OLSSON Bull. Amer. Paleont. Ithaca 17 63 p. 101 pl. xix f. 6.

*Mitra (Scabricola) marshalli* sp. n. Panama, BARTSCH Proc. U.S. Nat. Mus. 79 15 p. 4 pl. i f. 4.—*M. aurantia*, KING & PING 448.—*M. zonata* fig., ODHNER 599.—*M. loweana* nom. n. for *M. lowei* Dall non Dohrn, PILSBRY Nautilus 45 1 p. 29.—*M. erythrogramma* nom. n. for *Tiara lineata* Brod. (ex Swainson M.S.) fig. Conch. Icon. II pl. xvii f. 127, TOMLIN Nautilus 45 2 p. 54.—*M. lineata*, TOMLIN 877.—*M. zonata*, VAYSSIÈRE 901.

†*Mitra deluciformis* sp. n. [n. n.], HAWELKA 360.—*M. dariensis venezuelana* subsp. n. *M. quirosana* sp. n.

Miocene and Oligocene Venezuela, F. HODSON Bull. Amer. Paleont. 16 59 p. 42 figd.—*M. semicincta, columbellaeformis* spp. n. Eocene Dutch E. Indies, MARTIN Wetens. Meded. Mijnb. Weltevreden 18 1931 p. 18 figs.—*M. (Tiara) yasila* sp. n. Eocene Peru, OLSSON Bull. Amer. Paleont. 17 62 p. 43 pl. x ff. 1, 2.—*A. gallica, manciensis, subtenuistria, spp. n. goniophora perangulata* var. n. *M. (Cancilla) salbricensis, vasconiensis spp. n. salomacensis* em Neogene France, PEYROT Act. S. Lin. Bordeaux 79 Sup. pp. 97–116 figs.

†*Mitrolumna (Puruviana) rustica* subgen. et sp. n. Eocene Dutch E. Indies, MARTIN Wetens. Meded. Mijnb. Weltevreden 18 1931 p. 19 figs.—*M. raulini, aquitanica* spp. n. Tertiary Aquitaine, PEYROT Act. Soc. Lin. Bordeaux 79 Sup. p. 129, 130.

*Oliva callosa* sp. n. Panama, LI Bull. Geol. Soc. China 9 3 p. 271 pl. vii f. 61.

†*Oliva (Oliva) pichincha* sp. n. Oligocene Peru, OLSSON Bull. Amer. Paleont. Ithaca 17 63 p. 115 pl. xx.—*O. misti* sp. n. Eocene Peru, OLSSON Bull. Amer. Paleont. 17 62 p. 40 pl. vi.—*O. (Neocylindrus) degrangei* sp. n. Tertiary Aquitaine, PEYROT Act. Soc. Lin. Bordeaux 79 Sup. p. 177.

†*Olivancillaria (Agaronia) inca* sp. n. Eocene Peru, OLSSON Bull. Amer. Paleont. 17 62 p. 43 pl. vi f. 5.—*O. aequitorialis, O. (Agaronia) antisana* spp. n. Oligocene Peru, OLSSON Bull. Amer. Paleont. Ithaca p. 116 pl. xx.

†*Olivella pedroana* (Conrad) n. var. Miocene U.S.A., ETHERINGTON Univ. Calif. Pub. Geol. 20 5 106.—*O. tamiamiensis* sp. n. *O. jaspidea gladeensis* subsp. n. Tertiary S. Florida, MANSFIELD Pr. U.S. N. Mus. 79 pp. 4, 5 pl. i f. 3, 1.—*O. (Lamprodoma) illesca* sp. n. Oligocene Peru, OLSSON Bull. Amer. Paleont. Ithaca 17 63 p. 117 pl. xx.

*Olivellopsis* sect. n. of *Belloliva* Peile type, *B. (O.) simplex* Pease, THIELE Handb. 1 p. 333.

Olividae, OOSTINGH 617.

†*Pachymelon callaghani* sp. n. Tertiary N.Z., L. C. KING Tr. Pr. N.Z. Inst. 62 p. 81 f. 4, 5.

*Palamharpa exquisita* gen. et sp. n. IREDALE Rec. Aust. Mus. 18 4 p. 230 pl. xxii f. 8.

*Parvoliva* sect. n. of *Oliva* Brug. type *O. dubia* Schepman, THIELE Handb. 1 p. 335.

*Peruficus laguntensis charanalensis* var. n. Oligocene Peru, OLSSON Bull. Amer. Paleont. Ithaca 17 63 p. 111 pl. xvii.

†*Peruviana* subgen. n. vide *Mitrolumna* Eocene Dutch E. Indies, MARTIN Wetens. Meded. Mijnb. Weltevreden 18 1931 p. 19 fig.

†*Perulithes* subgen. n. of *Clavilithes* type *Cl. peruvianus* Woods., Eocene Peru, OLSSON Bull. Amer. Paleont. 17 62 pp. 3, 52.

*Phenacoptygma* (?) *kiiense* sp. n. off KH Japan, KURODA Venus 3 p. 48 fig.

†*Plejona (Volutocorbis) sula* sp. n. Eocene Peru, OLSSON Bull. Amer. Paleont. 17 62 p. 45 pl. xi ff. 6, 13.

†*Proximitra enavata* sp. n. Miocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 p. 123 fig.

†*Pseudolyria ventricola* gen. et sp. n. Eocene Dutch E. Indies, MARTIN Wetens. Meded. Mijnb. Weltevreden 18 1931 p. 17 figs.

†*Pugilina ? hannonica* sp. n. Pou-dingue Belgium, VINCENT Mem. Mus. N.H. Belg. 46 p. 48 pl. ii f. 12 text-fig.

*Reftuharpa* gen. n. type *Harpa lamellifera* Tate, IREDALE Rec. Aust. Mus. 18 4 p. 230.

*Roperia roperi*, LOWE 522.

*Saginafusus* gen. n. type *Fusus pricei* Smith *S. p. perficus* subsp. n. IREDALE Rec. Aust. Mus. 18 4 p. 227 pl. xxiii f. 1.

*Semifusus (Megalatractus) incisus* figs., DUPUIS 241.

*Semahana* subgen. n. vide *Strepsidura* Eocene Dutch E. Indies, MARTIN Wetens. Meded. Mijnb. Weltevreden 18 1931 p. 23 fig.

†*Spinomelon elimatus* sp. n. Miocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 p. 127 fig.

†*Strepsidura (Semahana) forongoensis* Mart. subgen. n. Eocene Dutch E. Indies, MARTIN Wetens. Meded. Mijnb. Weltevreden 18 1931 p. 23 fig.

†*Strepsidura tipperi, scobina* spp. n. Tertiary India, Cox Mem. Geol. Surv. India (N.S.) 15 pp. 191, 192 pl. xx ff. 16 a–b, 11 a–b.

†*Streptochetus foxi* sp. n. Fusinidae Tertiary India, Cox Mem. Geol. Surv. India (N.S.) 15 p. 181 pl. xx ff. 2 a-b.—*S. ? dispar* nom. mut. for *Fusus valenciennesi* Neogene France, PEYROT Act. Soc. L. Bordeaux 79 Sup. p. 65 figd.

†*Strigatella peruviana* sp. n. Oligocene Peru, OLSSON Bull. Amer. Paleont. Ithaca 17 63 p. 113 pl. xx.

†*Sycostoma* nom. n. for *Sycum* Bayle non Agassiz, Cox P. Malac. Soc. 19 291.

†*Sycum priscum* sp. n. Poudingue Belgium, VINCENT Mem. Mus. N.H. Belg. 46 p. 49 pl. ii f. 13 and text-fig.

*Teramachia tibiaeformis* gen. et sp. n. KII, KURODA Venus 3 p. 45 fig.

†*Terebrifusus placitus* pl. 4 ff. 17, 18, *lepus* pl. xi ff. 14, 15 spp. n. Eocene Peru, OLSSON Bull. Amer. Paleont. 17 62 p. 55.

†*Thala burdigalensis* sp. n. Tertiary Aquitaine, PEYROT Act. Soc. Lin. Bordeaux 79 Sup. p. 131.

*Trameharpa* gen. n. type *Harpa spirata* Tate, IREDALE Rec. Aust. Mus. 18 4 p. 230.

*Turbinella caledonica*, RISBEC 735.

†*Turricula miocenica*, T. (*Costellaria*) *pyrenaica*, *bearnensis*, T. (*Uromitra*) *degrangei* spp. n. Neogene France, PEYROT Act. S. Lin. Bordeaux 79 Sup. pp. 117-123 figs.

†*Vasum quirosense* sp. n. Oligocene Venezuela, F. HODSON Bull. Amer. Paleont. 16 59 p. 41 figd.—*V. subpugillare aquitanicum* var. n. *V. stephanense* sp. n. Néogene France, PEROT Act. S. Lin. Bordeaux 79 Sup. pp. 29-32 figd.

†*Vexillitra* gen. n. Mitridae type, *V. balteata* sp. n. Oligocene, N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 p. 124 fig.

†*Voluta vredenburgi* sp. n. Tertiary India, Cox Mem. Geol. Surv. India (N.S.) 15 p. 196 pl. xxi ff. 5, 6 a-b.—*V. (Cymbiola) feruglioi* sp. n. Pliocene Patagonia, DOELLIC-JURADO An. Mus. nac. B. Aires 36 1929-31 pp. 515-519 figs.—*V. pumila* sp. n. Eocene Dutch E. Indies, MARTIN Wetens. Meded. Mijnb. Weltevreden 18 1931 p. 15 fig.—

*V. paytanica* sp. n. Eocene Peru, OLSSON Bull. Amer. Paleont. 17 62 p. 44 pl. vi ff. 1-4.—*V. innexa* Reeve pl. 9, W. D. SMITH 795.

†*Volutilithes (Neoathleta) costellata tournoueri* var. n. Tertiary Aquitaine, PEYROT Act. Soc. Lin. Bordeaux 79 Sup. p. 159.

†*Volutocorbis harnaiensis* sp. n. Middle Laki, Baluchistan, Cox Tr. R.S. Edin. 57 1 p. 56 pl. ii f. 7.

†*Waihaioa (Pachymelon) pinguela, bulbus* spp. n. Volutidae, Tertiary N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 pp. 125, 126 figs.

†*Xancus aviaguensis, colinensis, falconensis, tirantensis* spp. n. Oligocene and Miocene Venezuela 16 59 pp. 38-40 figd.—*X. praecovideus riosecanus* subsp. n. Miocene p. 12 (106), HODSON Bull. Amer. Paleont. 16 60.—*X. (Eoxancus)* subgen. n. with *talarensis* type, and *paytensis* spp. n. Eocene Peru, OLSSON Bull. Amer. Paleont. 17 62 p. 47 pl. vii ff. 2, 3, 5.

*Yetus [Cymbium] maroccanus, turriculatus, pachyus* spp. n. pp. (19) 67, (22) 70, (27) 75, text-figs. pls. i, ii, *porcinus minor, p. ampla, proboscidalis producta, p. minor, gracilis modica, g. minor, maroccanus dilatata, productus major, tritonis* var. *minor ponderosa* [sic.] *pachyus minor vars.* n. pp. (13) 61- (27) 75 text-figs. pls. i, ii, PALLARY Ann. Mus. Hist. Nat. Marseille 1930 22 mem. iii.

*Zemiropsis* gen. n. for *Eburna papillaris* Sow. "Olividae," THIELE Handb. 1 p. 332.

†*Zexilia leachi, nodulifera* (Fasciolaridae) spp. n. Oligocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 p. 111 figs.

#### SPIRATELLIDAE.

*Thielea (Thilea)*, THIELE Handb. 1 2 p. 401.

(b) TOXOGLOSSA.

#### TURRIDAE, TEREBRIDAE, CONIDAE, CANCELLARIIDAE, HALIIDAE.

†*Admete (Bonellitia) paytensis* sp. n. Eocene Peru, OLSSON Bull. Amer. Paleont. 17 62 p. 29 pl. xi f. 5.—*A (Bonellitia) chainei* sp. n. Tertiary Aquitaine, PEYROT Act. Soc. Lin. Bordeaux 79 Sup. p. 262.



†*Asthenotoma nanggulanensis* sp. n. Eocene Dutch E. Indies, MARTIN Wetens. Meded. Mijnb. Weltevreden 18 1931 p. 8 fig.

†*Anapepta nucleosa* sp. n. Cancellariidae Oligocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 p. 122 fig.

†*Austrodrillia laevella, filiculosa, tersa, afflicta, exiguescens, bijuga*, spp. n. Tertiary N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 p. 140, 141 figs.

†*Austrotoma molinei, deducta* spp. n. Tertiary N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 p. 148 figs.

†*Awateria karakaensis* sp. n. Miocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 p. 144 fig.

†*Bivetia newvillei* sp. n. Tertiary Aquitaine, PEYROT Act. Soc. Lin. Bordeaux 79 Sup. p. 203.

†*Bonellitia fundata* sp. n. Cancellariidae Miocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 p. 120 fig.

†*Borsonella sinelirata* sp. n. Miocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 p. 137 fig.

†*Borsonia peruviana* sp. n. Oligocene Peru, OLSSON Bull. Amer. Paleont. Ithaca 17 63 p. 121 pl. f. 10, 14.

*Cancellaria balboae* sp. n. Panama Bay, PILSBRY Pr. Acad. N.S. Philad. 83 p. 439 pl. xli f. 7, 8.—*C. cancellata*, DESPOTT 225.

†*Cancellaria obesa* Gow. *planospira* var. n. Pliocene California, GRANT & GALE Mem. S. Diego Soc. N.H. 1 pp. 12, 613 pl. xxvii f. 4.—*C. lavelana, paraguayensis, urumacoensis, venezuelana* spp. n. Miocene Venezuela, H. K. HODSON Bull. Amer. Paleont. 16 59 pp. 44, 45 figs.—*C. (Crawfordina) weaver* sp. n. [weaveri p. 109] Miocene U.S.A., ETHERINGTON Univ. Calif. Pub. Geol. 20 5 108 f.

*Citharella* [*Cytharella* Monts.], THIELE Handb. 1 p. 366.

*Clamturris incredula* gen. et sp. n. IREDALE Rec. Aust. Mus. 18 4 p. 226 pl. xxv f. 21.

*Clathrodrilla* [*Clathrodrillia* Dall.], THIELE Handb. 1 p. 361.

*Clathrodrillia interstriata* (Li) fig., PILSBRY 673.

†*Clathrodrillia mira* sp. n. Oligocene Peru, OLSSON Bull. Amer. Paleont. Ithaca 17 63 p. 120 pl. xxi f. 5.—*C. (Moniliopsis) workensis* sp. n. Miocene U.S.A., ETHERINGTON Univ. Calif. Pub. Geol. 20 5 111 f.

*Clinuropsis* sect. n. of *Pleurotomella* Verrill type, *P. monochorda* Dall. Turridae, THIELE Handb. 1 p. 372.

†*Coluzea spectabilis* sp. n. (Columbariidae) Pliocene N.Z., POWELL Rec. Auckland. Inst. Mus. 1 pl 105 f. 1, 2.

†*Comitas bilix* sp. n. Miocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 p. 137 fig.—*C. declivis* sp. n. (Turridae) Pliocene N.Z., POWELL Rec. Auckland. Inst. Mus. 1 p. 107 f. 41.

*Conasprella* subgen. n. of *Conus* L. type *C. cancellatus* Brug., THIELE Handb. 1 p. 373.

Conidae, OOSTINGH 617.

†Conidae figs., PEYROT 651.

†*Conorbis umbgrovei* sp. n. Eocene Dutch E. Indies, MARTIN Wetens. Meded. Mijnb. Weltevreden 18 1931 p. 9 fig.

†*Conospirus oliveri* sp. n. Oligocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 p. 132 fig.

*Conus lividus*, ALPERS 9.—*Conus*, COULON 191.—*C. textile*, KING & PING 448.—*C. marmoreus*, RISBEC 735.—*C. mediterraneus*, TUZET 892.

†*Conus*, COULON 191.—*C. (Conospira) tiaratus, Conus priscus* spp. n. Eocene Dutch E. Indies, MARTIN Wetens. Meded. Mijnb. Weltevreden 18 1931 p. 9, 10 figs.—*C. (Lithoconus) hendersoni* sp. n. Oligocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 p. 131 figs.—*C. chiraensis, peruvianus*, spp. n. Eocene Peru, OLSSON Bull. Amer. Paleont. 17 62 pp. 39–40 pl. v.—*C. (Conospira) subturritus semigranulosa* var. n. p. 89, *C. (Lithoconus) mercati vasconiensis* var n. p. 93, *C. (Dendroconus) betulinoides girondicus* nov. mut. p. 98, *C. (Leptoconus) raulini* sp. n. p. 118 figs. Tertiary Aquitaine, PEYROT Act. Soc. Lin. Bordeaux 78.

†*Cosmasyrinx* gen. n. of Turridae type *C. monilifera* sp. n. with *C. ardua, latior, tereumera* spp. n. Tertiary N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 p. 138, 139 figs.

†*Crassispira woodringi*, *capella* spp. n. Eocene Peru, OLSSON Bull. Amer. Paleont. 17 62 pp. 33, 34 pls. iii, iv.

†*Cytharella foveolata* sp. n. Coal measure Lancs, WRIGHT Mem. Manchr. L.P. Soc. 74 p. 49 pl. i.

†*Daphnella* (*Rhaphitoma*) *anteniana* sp. n. Eocene Dutch E. Indies, MARTIN Wetens. Meded. Mijnb. Weltevreden 18 1931 p. 8 fig.

*Darioconus textilis osullivanii* subsp. n., IREDALE Rec. Aust. Mus. 18 4 p. 224 pl. xxv f. 13.

*Drillia inequistriata* n. n. p. 251, *inaequistriata* p. 275, sp. n. Panama, LI Bull. Geol. Soc. China 9 3 p. 275 pl. viii f. 71.

*Endemoconus* gen. n. type *Conus howelli*, IREDALE Rec. Aust. Mus. 18 4 p. 225.

†*Eopleurotoma patensis*, *wiedeyi*, spp. n. Eocene Peru, OLSSON Bull. Amer. Paleont. 17 62 pp. 29, 30 pl. iii ff. 11, 16, 17, pl. iv ff. 5, 10, 11.

†*Epideira pergracilis*, *filaris*, *praecisa media*, *ngatapa*, *fortinodosa*, *tenuineta* spp. n. Turridae, Tertiary N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 pp. 134–136 figs.

*Epidirella* gen. n. type *Hemipleurotoma tasmanica* May, IREDALE Rec. Aust. Mus. 18 4 p. 226.

†*Epidirona hedleyi* gen. et sp. n., IREDALE Rec. Aust. Mus. 18 4 p. 225.

†*Eubela monile* sp. n. Oligocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 p. 146 fig.

*Eudaphne allemani* gen. et sp. n. Panama, BARTSON Proc. U.S. Nat. Mus. 79 15 1931 p. 3 pl. i f. 3.

*Eulimella larochei* sp. n. New Zealand, POWELL Trans. Proc. N.Z. Inst. 61 3–4 1930 p. 544 pl. lxxxviii.

*Eugemmula hawleyi* gen. et sp. n. IREDALE Rec. Aust. Mus. 18 4 p. 226 pl. xxv f. 11, 14.

†*Filodrillia torquatella*, *rupta* spp. n. Tertiary N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 p. 145 figs.

*Floraconus peronianus* sp. n., IREDALE Rec. Aust. Mus. 18 4 p. 224 pl. xxv f. 12.

†*Fusiturricula yasila* sp. n. Eocene Peru, OLSSON Bull. Amer. Paleont. 17 62 p. 35 pl. iii f. 3.

*Fusiturris* sect. n. of *Turris* Müller type *T. (F.) undatiruga* Bivona, THIELE Handb. 1 p. 361.

†*Gemmula peraspera*, *orba*, spp. n. Miocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 p. 133 figs.

†*Genotia* (*Pseudotoma*) *pseudomelon-gena* sp. n. Eocene Dutch E. Indies, MARTIN Wetens. Meded. Mijnb. Weltevreden 18 1931 p. 9 fig.—*G. peruviana* sp. n. Eocene Peru, OLSSON Bull. Amer. Paleont. 17 62 p. 36 pl. iv ff. 1, 2.

†*Hemipleurotoma arenosa* sp. n. Eocene Peru, OLSSON Bull. Amer. Paleont. 17 62 p. 31 pl. iii ff. 4–6.

†*Hemizygia nodosa* sp. n. Shale Oklahama, WARTHIN Bull. Surv. Geol. Okla 53 p. 51 pl. vii f. 18.

†*Heterocithara laterculus* sp. n. Miocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 p. 147 fig.

†*Inquisitor waihoraensis*, *hebes*, *exigua*, *ihungia*, spp. n. Tertiary N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 pp. 142, 143 figs.

†*Insolentia inaequalis*, *famelica*, spp. n. Oligocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 p. 144 figs.

†*Itia* gen. n. (Turridae) type, *I. clatrata* sp. n. Oligocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 p. 143 fig.

†*Junghuhnina* subgen. n. vide *Trigonostoma* Eocene Dutch E. Indies, MARTIN Wetens. Meded. Mijnb. Weltevreden 18 1931 p. 11 fig.

†*Kaweke* gen. n. (Terebridae) type *K. fulta* sp. n., with *K. exilis* sp. n. Miocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 p. 152 figs.

†*Loxonema zygopleuroides* sp. n. Calcareous U.S.A., WARTHIN Bull. Surv. Geol. Okla 53 p. 48 pl. vii f. 3.

*Mangelia* (*Mitromorpha*) *crassaspera* nom. n. for *Daphnella fusciligata* Dall. 1871 not *M. ? rigida fusciligata* Cpr. 1856, GRANT & GALE Mem. S. Diego Soc. N.H. 1 pp. 12, 599.

†*Marshallena decens*, *celsa* spp. n. Tertiary N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 p. 147 figs.—*M. austrotomoides* sp. n. (Turridae) Pliocene N.Z., POWELL Rec. Auck. Inst. Mus. 1 p. 106 f. 5, 6.

†*Merica gerthi* sp. n. Eocene Dutch E. Indies, MARTIN Wetens. Meded. Mijnb. Weltevreden 18 1931 p. 10 fig.—*M. salomacensis variculosa* spp. n. Tertiary Aquitaine, PEYROT Act. Soc. Lin. Bordeaux 79 Sup. ppl 210, 212.

*Mericella* sect. n. of *Cancellaria* Lk. type *C. (M.) jucunda* fig., THIELE Handb. 1 p. 352.

*Microdrilla* [*Microdrillia* Casez], THIELE Handb. 1 p. 363.

*Micropleurotoma* subgen. n. of *Turris* Müller type *T. (M.) spirotropoides*, THIELE Handb. 1 p. 362.

*Mitratoma* subgen. n. of *Scobinella* type *S. (M.) bartschi* sp. n. Eocene Peru, OLSSON Bull. Amer. Paleont. 17 62 pp. 37, 38 pl. iv ff. 6–9.

†*Mitrihara formosa* sp. n. Miocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 p. 146 fig.

†*Mitromorpha gunteri* sp. n. Tertiary S. Florida, MANSFIELD Pr. U.S. N. Mus. 79 p. 5 pl. ii f. 6.

†*Moniliopsis incisa* Carpenter *quingecincta* var. n. Pliocene California, GRANT & GALE Mems. S. Diego Soc. N.H. 1 pp. 12, 568 pl. xxvi f. 33.

†*Moniliopsis peruviana, paytensis* spp. n. Eocene Peru, OLSSON Bull. Amer. Paleont. 17 62 pp. 31, 32 pl. iii.

†*Oamarina gibbera*, Oligocene *concava*, Miocene N.Z., spp. n. *Cancellariidae*, MARWICK Palaeont. Bull. N.Z. 13 1931 p. 120 figs.

†*Orthonema strigatum* sp. n. Shale Oklahoma, WARTHEN Bull. Surv. Geol. Okla 53 p. 53 pl. vii f. 23.

†*Parvisipho aratus, striatus* spp. n. Néogene France, PEYROT Act. S.L. Bordeaux 79 Sup. pp. 5, 7 pl. v.

*Perirhoe exulta* sp. n., IREDALE Rec. Aust. Mus. 18 4 p. 224 pl. xxv f. 3.

†*Pervicacia angulifera timida* spp. n. Oligocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 p. 150 figs.

†*Pleurotoma hillegondae* sp. n. Eocene Dutch E. Indies, MARTIN Wetens. Meded. Mijnb. Weltevreden 18 p. 7 fig.

†*Pseudomelatoma penicillata* Carpenter *seminiflata* var. n. Pleistocene California, GRANT & GALE Mems. S. Diego Soc. N.H. 1 pp. 12, 561 pl. xxvi f. 19.

†*Puka* gen. n. (Turridae) type, *P. fulgida* sp. n. Oligocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 p.p. 149, 150 fig.

†*Rhomboidestoma* gen. n. (*Trigonostoma* *orcitans* sp. n. Eocene Dutch E. Indies, MARTIN Wetens. Meded. Mijnb. Weltevreden 18 1931 p. 12 fig.

†*Scobinella meloda* sp. n. Oligocene Peru, OLSSON Bull. Amer. Paleont. Ithaca 17 63 p. 120 pl. xxi f. 12.—*S. morieri gavalanensis* subsp. n. Tertiary Venezuela, RUTSCH Ecl. geol. helv. 23 2 p. 611 pl. xvii ff. 8, 9.

†*Scrinium strongi* sp. n. Oligocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 p. 137 fig.

†*Spirotropis washingtonensis* sp. n., Miocene U.S.A., ETHERINGTON Univ. Calif. Pub. Geol. 20 5 113 f.

*Strioconus* sect. n. of *Conus* L. type *C. striatus* L., THIELE Handb. 1 p. 374.

†*Surcula beneharnica, bironensis* spp. n. Eocene France, DOUVILLÉ & O'GORMAN Bull. Soc. geol. Fr. 29 6–7 p. 355 pl. xxix.—*S. plagiaria, jogjacartensis, nanggulanensis, gerthi, boehmi* spp. n. Eocene Dutch E. Indies, MARTIN Wetens. Meded. Mijnb. Weltevreden. 18 1931 p. 5 figs.

†*Sveltia inermis gallica* nov. mut. p. 229, *S. (Aneurystoma) castexi, peyreirensis* spp. n. pp. 234–235, *S. (Calcarata) calcarata basisulcata* nov. mut. p. 287.—*S. varicosa paucicostata, v. bearnensis* mutt. nov. *S. salbriacensis, burdigalensis, pyrenaica, aturensis* spp. n. Tertiary Aquitaine, PEYROT Act. Soc. Lin. Bordeaux 79 Sup. pp. 218–223.

*Terebra (Strioterebrum) melia* sp. n. Taboga Id., PILSBRY Pr. Acad. N. Sci. Philad. 83 p. 437 figs. 3, 4, *T. (S.) cracilenta* Li figd.

†*Terebra macrospira, cracilenta, tenius* spp. n. Miocene Panama, LI Bull. Geol. Soc. China 9 3 pp. 273, 274 pl. viii ff. 66, 67, 68.—*T. (Strioterebrum) negritensis* sp. n. Eocene Peru, OLSSON Bull. Amer. Paleont. 17 62 p. 28 pl. v ff. 5, 8, 16.—*T. smithi*, SAKAKI 756.

†*Trigonostoma (Junghuhnina) ficus* subgen. et sp. n. Eocene Dutch E. Indies, MARTIN Wetens. Meded. Mijnb. Weltevreden. 18 1931 p. 11 fig.—*T.*

*geslini lateapertum* var. n. *pseudumbilicare*, *benoisti*, *T.* (*Venturia*) *burgigalense mucronatum* spp. n. Tertiary Aquitaine, PEYROT Act. Soc. Lin. Bordeaux 79 Sup. pp. 240-245, 253, 256.

†*Turricula* (*Pleurofusua*) *hanguensis*, *T.* (*Ancistrostoma*) *haydeni* sp. n. Tertiary India, COX Mem. Geol. Surv. India (N.S.) 15 pp. 193, 195 pl. xx ff. 12 a-b, 13 a-b.—*T.* (*Pleurofusua*) *eolavinia* sp. n. Eocene Peru, OLSSON Bull. Amer. Paleont. 17 62 p. 35 pl. iii.—*T.* (*Surcula*) *piura*, *sullana*, *T.* (*Knefastia*) *chira* spp. n. Oligocene Peru, OLSSON Bull. Amer. Paleont. Ithaca 17 63 pp. 118, 119 pl. xxi.

Turridae, GRANT & GALE 330.—LOWE 522.

†*Waipaoa* gen. n. of Cancellariidae type *Admete cristata* Marwick Miocene N.Z. with *W. grata*, *affectata* spp. n. Oligocene, N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 pp. 122, 123 figs.

†*Waitara* gen. n. (Turridae) type, *Turricula waitaraensis* Marwick Miocene N.Z. with *W. generosa* sp. n. Eocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 p. 149 fig.

†*Zeacuminia tantula*, *turpicula* spp. n. Oligocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 p. 151 figs.—*Z. murdochi* sp. n. (Terebridae) Waitotaran Pleistocene N.Z., POWELL Rec. Auckland Mus. 1 p. 107 f. 42.

†*Zygopleura trimera*, *obsoleta* spp. n. Shale Oklahoma, WARTHIN Bull. Surv. Geol. Okla. 53 pp. 50, 51 pl. vii ff. 16, 17.

### Opisthobranchia.

*Aciodoris* (*Akiodoris*), p. 426.

†*Acteon infulatus*, *articulatus* spp. n. Tertiary N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 pp. 152, 153 figs.—*A. boulderana* sp. n. Miocene U.S.A., ETHERINGTON Univ. Calif. Pub. Geol. 20 5 p. 113 f.—*A. (Rictaxis) painei* Dall *grandior* var. n. Pliocene California Pliocene California, GRANT & GALE Mem. S. Diego Soc. N.H. 1 pp. 12, 444 pl. xxiv f. 12.

†*Actaeonella* sp. n. ?, ADKINS 4 p. 196.

*Aegires sublaevis*, ODHNER 599 39 figs.

*Aeolidia joubini*, RISBEC 736.—*A. papillosa*, ROUSSEAU 750.

*Aeolidiella alderi* figd., BUCHNER p. 144 140.

*Aeolis papillosa*, LÖNNBERG 519.

*Archidoris tuberculata*, *pilosa*, FISHER 276.

*Aplysia*, BETHE 89.—*A. limacina*, *depilans*, *punctata*, HABERLANDT 354.—*A. limacina*, JORDAN 424.—*Aplysia*, JORDAN 425.—*A. rosea*, LÖNNBERG 519.—*Aplysia*, PRUVOT-FOL 695.—*A. limacina*, *depilans*, SCHREIBER 780.

*Aplysiella weebii*, VAYSSIÈRE 901.

*Atys macandrewi* fig., ODHNER 599.

†*Atys* (*Aliculastrum*) *maorinus*, *improcerus* spp. n. Oligocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 p. 156 figs.

Bullidae, OOSTINGH 617.

*Bulla hydatis*, BERRILL 80.—*B. ampulla*, KING & PING 448.—*B.*, PILSBRY 659.—*B. semistriata*, SCHREIBER 780.

†*Bullinella* (*Cylichnella*) *Vandervlietki* sp. n. Eocene Dutch E. Indies, MARTIN Wetens. Meded. Mijnb. Weltevreden 18 1931 p. 3 fig.

*Bouvieria stellata*, *ocellata*, VAYSSIÈRE 902.

*Cadlinella* gen. n. of Polyceridae type *C. ornaticissima* (Risbec) fig. New Caledonia, THIELE Handb. 1 2 p. 431.

*Centrodoris* (*Kentrodoris*), THIELE Handb. 1 2 p. 436.

*Chromodoris*, ALLAN 8.—*C. luteo-rosea* figs., VAYSSIÈRE 901.

*Clione limacina*, LEBOUR 510.

*Coryphella sarsi*, *rufibranchialis*, *radulae*, ODHNER 603.

*Cuthona aurantiaca*, *pustulata*, figs. rad., ODHNER 603.

*Cuthonella norvegica* sp. n. Norway, ODHNER Tromsø Mus. Arsh. 50 1927 1 p. 13 figs.

†*Cylichnania* gen. n. (Scaphandridae) type *C. bartrumi* sp. n. with *C. circumscripta*, *clatrellata* spp. n. Oligocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 pp. 153, 154 figs.

*Dendronotus frondosus*, LÖNNBERG 519.

*Doridopsis limbata*, TCHANG-SI 850.

*Doris repanda*, LÖNNBERG 519.

*Doto fragilis*, FISHER 276.

*Drepanida* nom. nov. for *Drepania* Lafont, MACFARLAND.

*Egalvina* gen. n. for *viridula* Bergh, ODHNER Tromso Mus. Arsh. 50 1927 1 p. 11 figs.

*Eliotia souleyeti*, VAYSSIÈRE 900.

*Elysia ornata*, RISBEC 736.—*E. (Elysiella) Verrilli* nom. n. for [E.] *catula* Verrill err. non *Placobranchus catulus* Gould, THIELE Handb. 1 2 p. 415.

*Facelina drummondi*, FISHER 276.

*Favorinus albus*, LABBÉ 489.

*Fiona marina*, KROPP 470.

*Flabellina ornata*, ALLAN 8.

*Galvina exigua*, FISHER 276.

*Gastropteron meckelii*, VAYSSIÈRE 901.

*Glaucus atlanticus* fig., GLIESCH 318.

*Glossodoris punctilucens* fig., ODHNER 599.

*Goniodoris nodosa*, FISHER 276.—*G. castanea*, TOLMER 866.

*Hedylopsis* gen. n. of *Hedylidae* fam. n. genotype, *H. spiculifera* (Kowalevsky) Sea of Marmora, THIELE Handb. 1 2 1931 p. 443.

*Himatina* nom. nov. for gen. *Himatella* Bergh (type *H. trophina* Bergh) non Zittel *Flabellinidae*, THIELE Handb. 1 2 1931 p. 453.

*Hydatina stromfelti* sp. n. Canaries, ODHNER Arkiv Zool. 23A 14 p. 26 figs.

*Idalia elegans* and var. *dautzenbergi* VAYSSIÈRE 900.

*Iduliella* nom. nov. (type *I. pygmaea* Bergh) for Sec. *Dotilla* Bergh non Stimpson, of *Idulia* Lomanotidae, THIELE Handb. 1 2 1931 p. 449.

†*Kaitoa* gen. n. (*Scaphandridae*) type *K. haroldi* sp. n. Miocene N.Z., with *K. islandica* sp. n. Oligocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 p. 155 figs.

*Kaloplocamus aureus* sp. n. Canaries, ODHNER Arkiv f. Zool. 23A 14 p. 41 fig.

*Limapontia capitata*, VAYSSIÈRE 900.

*Lomanotus genei*, FISHER 276.

*Madrella aurantiaca*, VAYSSIÈRE 900.

*Metactaeon* subgen. n. of *Actaeon* type *A. (M.) aequatorialis* Thiele, THIELE Handb. 1 2 p. 378.

*Nereis virens*, TANASIJOUK 849.

*Notarchus*, PRUVOT-FOL 694.—*N. punctatus*, VAYSSIÈRE 900.

*Nudibranchiata*, GURJANOWA, SACHS & USCHAKOV 343.

*Okadaia elegans*, Baba 36.

*Okadaidae* fam. n. sole gen. & sp. *Okadaia elegans* Baba, BABA Annot. zool. jap. 13 1931 p. 64.

*Oscanius membranaceus*, SIGALAS & CHAPHEAU 791.—*O. membranaceus*, VAYSSIÈRE 900.

*Parhedyle* gen. n. of *Hedylidae* fam. n. genotype *P. tyrtovii* Kowalevsky, THIELE Handb. 1 2 pp. 443–444.

*Pelta coronata*, VAYSSIÈRE 900.

*Philine aperta*, PRUVOT-FOL 694.

*Phyllirhoë sanzoi*, ANTONIO 18.—*Phyllirhoë sanzoi* sp. n. Mediterranean, SPARTÀ Mem. Com. talassogr. Ital. 132 1927 p. 7 pl. i.

*Phyllirhoë bucefala*, SCHREIBER 780.

*Pleurobranchaea meckeli*, VAYSSIÈRE 902.

*Pleurobranchus* (*Pleurobranchopsis*) *verrilli* nom. nov. for *P. (P.) aurantiacus* Verrill non Risso, THIELE Handb. 1 2 1931 p. 419.

*Polycera*, ALLAN 8.—*P. salamandra* sp. n., LABBÉ Bull. Soc. zool. Fr. 56 pp. 19–24.

*Precuthona* gen. n. for *peachi* Alder & Hancock, ODHNER Tromso Mus. Arsh. 50 1927 1 p. 16 fig.

†*Rhizorus fulmenicrulum* sp. n. Oligocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 p. 157 figs.

†*Ringicula auriculata, ventricosa*, PATRINI 634.—*R. mammosa* sp. n. Eocene Dutch E. Indies, MARTIN Wetens. Meded. Mijnb. Weltevreden 18 1931 p. 4 figs.—*R. ngatapa, tutamensis, obesior* spp. n. Tertiary N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 pp. 156, 157 figs.

†*Roxania nanggulanensis*, *R. (Acrostemma) gracilis* spp. n. Eocene Dutch E. Indies, MARTIN Wetens. Meded. Mijnb. Weltevreden 18 1931 p. 3 figs.—*R. montensis* sp. n. Tuffeau Belgium, VINCENT Mem. Mus. N.H. Belg. 46 p. 56 pl. iii f. 4 & text-fig.



*Scaphander malleatus* sp. n. Oligocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 p. 155 fig.

*Spurilla glauca*, LABBÉ 489.—*S. neopolitana, glauca* Ald. & H., ROUSSEAU 750.

*Susania* [*Oscanius*] *testudinaria*, VAYSSIÈRE 902.

*Tethys*, PRUVOT-FOL 695.

†*Tornatellaea regularis, alabamiensis*, GARDNER 302.—*T. ciplensis, montensis* spp. n. Tuffeau Belgium, VINCENT Mem. Mus. N.H. Belg. 46 pp. 53, 54 pl. iii f. 1, 2 & text-figs.

*Tylodina citrina*, VAYSSIÈRE 900.

*Veleva spirans*, KROPP 470.

*Veronicella leydigii* Simroth figd., WILLIAMS 948.

#### PULMONATA.

**ELLOBIIDAE, SIPHONARIIDAE, CHILINIDAE, LYMNOEIDAE, PLANORBIDAE, ANCYLIDAE, PHYSIDAE.**

*Ameria leopoldi exserta* sp. et var. n. East Indies, DUPUIS Bull. Mus. H.N. Belg. 7 pp. 1, 3 figs.

*Amphipeplea glutinosa*, BLACKBURN 96.

Ancylidae, BAKER & CAHN 43.—GERMAIN 313.

*Ancylus hendersoni* Walker, figd., MOZLEY 579.

Auriculidae, GERMAIN 313.

*Bulinus* [STILES] 824.

†*Bulinus vadászii vadászii* sp. n. *B. v. tylopomoides* subsp. n. Hungary, W. WENZ Archiv f. Moll. 63 3 pp. 118, 120 [pl. x 2 a-c].

Bullinidae, GERMAIN 313.

*Bulinus* [STILES] 824.

*Bulinus senegalensis, coulboisi, Masa-kaensis, corneus, comptus alluaudi, contortus, mareoticus, angolensis, truncatus, cyrtotus, verreauxii, crystallinus, tropicus, cernicus B. (Pyrgophysa) forskalii, wahlbergi*, BEQUAERT & CLENCH 72.

*Camptoceras (Culmenella) prashadi* nov. for *Bulinus (Culmenella) hirasei* Clench, 1927, CLENCH, W. S. Nautilus 44 3 p. 80.

*Carinifex newberryi*, HENDERSON 367.

Carychiidae, BROOKS 134.

*Carychium exiguum*, RAWSON 712.

*Cassidulina* subgen. n. of *Cassidula*. Fér. type, *C. (c.) doliolum* (Petit), Ellobiidae, THIELE Handb. 1 2 1931. p. 467.

*Coretus*, PILSBRY 660.

*Ferrissia*, RAWSON 712.

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*Galba truncata*, ROSZKOWSKI 746.

*Gyraulus parvus*, KRULL 471.—*G. albus limophilus, laevis*, LINDHOLM 517..

†*Gyraulus rumanus* sp. n. Miocene: Rumania, WENZ Z. deuts. geol. Ges. Berlin 83 2 p. 103 pl. i f. 3.

*Helisoma campanulata canadensis*: var. n. Ontario, BAKER & CAHN Bull. Canada Dep. Mines 67 pp. 41, 57 pl. ii.

*Limnaea* [vide etiam *Limnea* et *Lymnaea*, *Lymnaeus*, *Lymnoea*], peregra, FISHER 299.—*L. stagnalis*, D. GEYER 316.—*L. palustris, stagnalis*, HARNISCH 357.—*L. peregra, ovata*, HRASS 397.—*L. stagnalis*, KÖRNER 464.—*L. stagnalis, peregra*, KÖRNER 465.—*L. ovata*, MAYER 551.—*L. ovata*, MUNTHE 583.—*L. glabra*, MOORHOUSE 576.—*L. truncatula*, POPOW 683.—*L. stagnalis* fig., H. WAGNER 922.

†*Limnaea* vide etiam *Lymnaea* et *Limnea*, MUNTHE 585.

†*Limnaeus grabaui, teilhardi, shansiensis* spp. n. Tertiary-Quaternary China., PING Palaeont. sinica B 6 6 pp. 8-11. pl. i & text-figs.

*Limnea* [vide etiam *Lymnaea* et *Limnaea*] *auricularia*, COMANDON & FONBRUNE 174.—*L. stagnalis*, MIEGEL 557.—*L. (digestion)*, YONGE 972.

Limnaeidae, GERMAIN 313.

*Lymnaea* [*Lymnoea*] *columella*, BAILY 38.—*L. stagnalis*, BÖHMIG 107.—*L. stagnalis appressa, palustris*, CRABB 204.—*L.*, GAUNT 308.—*L. utahensis*, HENDERSON, J. 367.—*L. vulgaris, palustris*, KRULL 471.—*L. (Radix) auricularia lagotis L. (Galba) truncatula, Lymnaea (Cerasina) luteola*, LINDHOLM 517.—*L. japonica*, MIYADI 565.—*L. vahllei* Möller, traskii Tryon figd., MOZLEY 579.—*L.* POPOVICI-BĂZANOSANN 682. — *L.* RAWSON 712.—*L.* ROSZKOWSKI 745.—*L. (Radix) japonica* Jay, TAKI 841, 842.—*Lymnaea idahoensis* sp. n. Idaho, HENDERSON, J. Nautilus 44 p. 75.

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†Lymnaeidae, F. C. BAKER 42.

*Lymnoea peregra, auricularia, palustris, truncatula*, HENKEL 371.

*Otina otis*, DEAN 219.

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*Physa gyrina*, CRABB 204.

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*Physa acuta*, KÖRNER 464.

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*Physa*, RAWSON 712.

*Physa*, TOKINE & BARANENKOWA 865.

†*Physa bridgerensis, pleromatis*, RUSSELL 754.

†*Physa doeringi* sp. n. Rio Negro, DOELLO-JURADO Boll. Acad. Nac. Cien. Córdoba Buenos Aires 1927 30 p. 411 figd.

*Physastra timorensis*, RENSCH 726.

Physidae, BAKER & CAHN 43.

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*Physopsis conicum* "Porter 1925" (sp. n. ?) as host of *Schistosoma*, LE ROUX 750b p. 408 fig. p. 435.

*Planorbis corneus*, BÖHMIG 107.—BORDEN 116.—DOGIEL 232.—*P. vorticulus*, ELLIS 250.—*P. corneus*, HARNISCH 357.—*P. convexiusculus*, JUTTING 431.—*P. planorbis*, LINDHOLM 517.—*P. corneus*, LUTHER 528.—*P. spirorbis* abnormal, MOREHOUSE 576.—*P. altissimus* Baker, *exacuus* Say *variabile brevis* Sterki, *neglectum* Sterki, *antrosus striatus* Baker figd., MOZLEY 579.—*Planorbis*, RAWSON 712.—*P. albus* spiral form, SOWDEN 802.—*P. corneus*, WELSH 941.—*P.*, WOLVEKAMP 959.—*P. (Helisoma?) pelseeneeri* sp. n. Lake Takengon, Sumatra, DUPUIS Bull. Mus. H.N. Belg. 7 p. 4 f.—*P. kahwaica* sp. n. Hawkes Bay N.Z., FINLAY & LAWS Trans. Proc. N.Z. Inst. 62 1 p. 23 figs.—*P. arnouldi* sp. n. France, GERMAIN Faune de France 22 pp. 524, 525 text-figs.

†*Planorbis storchi* sp. n. Eocene Wyoming, RUSSELL Bull. Amer. Paleont 18 64 p. 17 pl. ii.—*P. truncatoconicus, verticilloides* "spp. n." [nn. n.] PAVLOVITCH 637.—*P. youngi, tungurensis, minutus*, spp. n. Pliocene Mongolia, PING Bull. Geol. Soc. China 10 pp. 229-233 figs.—*P. chihliensis*, PING 680.

Planorbidae, CONNOLLY 176.—GERMAIN 313.—JUTTING 431.

†Planorbidae, WENZ 468.

*Pomatiopsis lapidaria*, BAKER, F. C. 39.

†*Pomatiopsis* (associated with *Fossaria*), F. C. BAKER 39.

*Protancylus javanus*, JUTTING 431.

*Pseudisidora* subgen. n. type *P. rubella* (Lea) Lymnaeidae, THIELE Handb. 1 2 p. 476.

*Pythia dautzenbergi* sp. n. East Indies, DUPUIS Bull. Mus. N.H. Belg. 7 p. 1 fig.

*Radix auricularia*, MIEGEL 557.—*R. ovata*, ROSZKOWSKI 745.

*Segmentina calathus*, JUTTING 431.

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*Stagnicola catascopium kempii* var. n. Ontario, BAKER & CAHN Bull. Canada Dep. Mines 67 pp. 41, 53, pl. ii.

SELENITIDAE, ZONITIDAE,  
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*Agriolimax agrestis*, BABOR & FRANKENBERGER 37.—KRAJNÍK 467.  
*A. agrestis*, MILES, WOOD & THOMAS 559.—*A. agrestis* v. *rufescens* Dumont & Mortillet, RENNIE 725.—*A. agrestis* ROSTRUP & THOMSEN 744.—*A. agrestis*, SZABO 834.—H. WAGNER 920.—*Agriolimax brunneri, labáni, rivanus* spp. n. Eastern Europe, H. WAGNER Zool. Anz. Leipzig 95 pp. 197-199.—*A. reticulatus, agrestis*, K. ZIMMERMANN 975.

*Ancomena* subgen. n. type *Haplotrema vancouverense* (Lea), H. B. BAKER Proc. Acad. Nat. Sci. Philad. 82 1930 pp. 405, 412, pl. xxxiv f. 4, 5, 10.

*Ancotrema* subgen. n. type *Haplotrema sportella* (Gould), H. B. BAKER Proc. Acad. Nat. Sci. Philad. 82 1930 pp. 405, 418 pl. xxxv f. 1-4.

*Arabivitrina* sec. n. of *Vitrina*, type *V. (A.) arabica* Thiele, THIELE Handb. 1 2 p. 600.

*Arion subfuscus*, ELLIS 250.—*A. hortensis*, MILES, WOOD & THOMAS 559.—*A. subfuscus*, MILES, WOOD & THOMAS 559.—*A. ater* v. *oculata*, MOREHOUSE 575.—*A. subfuscus, circumscriptus*, PANOTSHINI 627.—*A. hortensis*, ROSTRUP & THOMSEN 744.—*A. ater* anatomy, ROTARIDES 748.—*A. subfuscus, empiri*

*corum intermedius, circumscriptus, hortensis*, HENKEL 371.—*A. ater* v. *nigrescens*, Razoumovski Fossil Marsh Lanarkshire 1917, RENNIE 725.

Arionidae, BROOKS 134.

*Ariophanta, normani*, LAIDLAW 491.

*Atopos*, HEURN 383.

*Cryptaegis pilsbryi*, HOFFMANN 392.

*Daubebardia transsylvanica* anatomy, ROTARIDES 748.

*Durgellina birmanica* sp. n. *feai*, THIELE SitzBer. Ges. naturf. Fr. Berl. 1930 8-10 1931 p. 398.

*Dyakia hugonis, janus, lakatensis, Dyakia godwinausteni* sp. n. Chantaboon, LAIDLAW P.M.S. 19 p. 191.

Dyakiinae subfam. n., LAIDLAW P.M.S. 19 p. 190.

*Estria togoensis* sp. n., THIELE Sitz. der Ges. natuf. Fr. Berl. 1930 8-10 1932 p. 401.

*Everettia subconsul*, LAIDLAW 492.

*Fametesta mirabilis*, KURODA 475.

*Guppya sterkii punctum* subsp. n. Necaxa Mexico, H. B. BAKER Acc. Pp. Mus. Zool. Univ. Mich. 220 1930 p. 21 pl. vii ff. 14-16.

*Haplomena* subgen. n. type *Haplotrema paucispira* (Poey), H. B. BAKER Proc. Acad. Nat. Sci. Philad. 82 pp. 405, 421 pl. xxxv f. 5, 6.

*Haplotrema duranti continentis* subsp. n. California, H. B. BAKER Proc. Acad. Nat. Sci. Philad. 82 1930 p. 410 pl. xxxii f. 1-4, 6, 7.

*Hawaii minuscula* (Binn) = *Pseudohyalina hawaiiensis* Pfr., WILLIAMS 948.

*Helicarion boettgeri* figs., PING 680.—*H. planospirus, p. malaitaensis*, HOFFMANN 392.

*Hemiglyptopsis* subgen. n. of *Antinous* Ariophantidae type, *A. (H.) foullioyi* (Guillou) New Guinea, THIELE Handb. 1 2 p. 624.

*Hirasea nesiotica liobasis* subsp. n. Japan, PILSBRY Nautilus 45 1 p. 30.—*H. sinuosa, goniobasis, insignis, biconcava*, KURODA 475.

*Imerinia*, H. B. BAKER 46.

*Kalamantania* gen. n. type *Helicarion* (?) *whiteheadi* Godwin-Austin gen. n. of Dyakiinae, LAIDLAW P.M.S. 19 p. 193 figs.

*Kaliella*, DICKERSON 227.

*Ledoulxia monticola, pseudojenynsi*, spp. n., THIELE Sitz der Ges. naturf. Fr. Berl. 1930 pp. 395, 402 figs.

Limacidae, BROOKS 134.

*Limax maximus, cinereoniger*, BABOR & FRANKENBERGER 37.—*Limax*, BEIER 65.—*L. maximus, arborum, flavus, tenellus*, HENKEL 371.—*L. variegatus*, KRAJNIK 467.—*L. agrestis, tenellus*, PANOTSKINI 627.—*L. maximus* v. *cellaria* D'Arg. (Lanarkshire), RENNIE 725.—*L. flavus* anatomy, ROTARIDES 748.—*L. cinerea*, STEFANELLI 816.—*L. flavus*, SZABÓ 836, 837.—*L. scupicus* sp. n. Üszküb, H. WAGNER Zool. Anz. Leipzig 95 p. 194.

*Macrothylacus* subgen. n. of *Milax*, J. WAGNER Allat. Közlem. Budapest 27 1930 p. 99.

*Milax gracilis*, BLACKBURN 97.—*Milax*, BEIER 65.—*M. glutinosa*, COOPER 185.—*M. sowerbii*, MILES, WOOD & THOMAS 559.—*M. gracilis*, TICEHURST 863.—H. WAGNER 920.—*M. (Milax) plöbsti* sp. n. Volosca, H. WAGNER Archiv f. Moll. 63 1 p. 47.—*M. (Subamalia) athenensis* Athens sp. n., H. WAGNER Zool. Anz. Leipzig 95 197.—*M. (Macrothylacus) jablanacensis* sp. n. p. 99, *M. (Milax) schleschi* sp. n. p. 101, J. WAGNER Allat. Kozlem Budapest 27 1930 pl. i.

*Novovaginula* subgen. n. type (*N. carinata* (Thiele) of *Pseudoveronicella*, THIELE Handb. 1 2 p. 491.

*Otesia cerasina reducta* subsp. n. [PILSBRY] Nautilus 45 1 p. 30.

*Pallifera costaricensis alticola* subsp. n. El Desierto Mexico, H. B. BAKER Occ. Pp. Mus. Zool. Univ. Mich. 220 1930 p. 15 ff. 2-4, 6.

*Parasitala* gen. n. type *P. osumiensis* sp. n. Yakashima, THIELE S.B. Ges. Nat. Freunde 1931 p. 399 f.

*Paravitrea calcicola* sp. n. Tennessee, H. B. BAKER Proc. Acad. Nat. Sci. Philad. 83 1931 pp. 85, 107 pl. xviii f. 7, 8.

*Parmavitrea* sec. n. of *Paravitrea* type *P. pontis* sp. n. Va., H. B. BAKER Proc. Acad. Nat. Sci. Philad. 83 1931 pp. 85, 98, 108-109 pl. xviii f. 1, 2, 9.

*Pectovitrea* subgen. n. of *Paravitrea* type *P. variabilis* Baker, H. B. BAKER Proc. Acad. Nat. Sci. Philad. 83 1931 pp. 85, 97-98, 99, pl. xvi f. 9-11.

*Petrovitrea* subgen. n. of *Paravitrea* type *P. petrophila* (Bland), H. B. BAKER Proc. Acad. Nat. Sci. Philad. 83 1931 p. 85.

*Philalanka delicata, camerunensis* spp. n., THIELE SitzBer. Ges. naturf. Fr. Berl. 1930 8-10 1931 p. 400 figs.

Philomycidae, BROOKS 134.

*Pilsbryna castanea* sp. n. Tennessee, H. B. BAKER Proc. Acad. Nat. Sci. Philad. 83 1931 pp. 85, 111 pl. xix f. 1-8; pl. xx f. 4.

*Priscovitrea* subgen. n. type *Pristiloma chersinella* Dall. Oregon, H. B. BAKER Proc. Acad. Nat. Sci. Philad. 83 1931 pp. 85, 88, 90 pl. xiii f. 8-11.

*Priscovitrea* sec. n. of *Pristiloma* type *P. nicholsoni* Baker, H. B. BAKER Proc. Acad. Nat. Sci. Philad. 83 1931 pp. 85, 88, 91, pl. xiii f. 5-7.

*Pristinoides* sec. n. of *Pristiloma* type *P. lansingi* (Bland), H. B. BAKER Proc. Acad. Nat. Sci. Philad. 83 1931 pp. 85, 89, 94 pl. xiv f. 7-11.

*Pristinopsis* sec. n. of *Pristiloma* type *P. idahoense* Pils., H. B. BAKER Proc. Acad. Nat. Sci. Philad. 83 1931 pp. 85, 89, 95 pl. xiv f. 4-6.

*Rhinocochlis* gen. n., type *R. nasuta* (Metcalfe), Ariophantidae, THIELE Handb. 1 2 p. 633.

*Sarika kawtaoensis* sp. n. Siam, TOMLIN Jour. Siam Soc. (Nat. Hist.) 8 1 1929 p. 15.

*Sitala*, DICKERSON 227.—*S. aethiopica* nom. n. for *S. trochulus* Poll. non Mlldf. p. 396, *S. putzeysi* nom. n. for *S. (Trochozonites) trifilaris* Dup. & Putz non Gredler p. 394, *S. jenynsi alba* var. n. p. 395 f. [n.v.], THIELE S.B. Ges. Nat. Freunde. 1931.—*S. zenkeri* sp. n. Africa, THIELE Sitz der Ges. naturf. Fr. Berl. 1930 8-10 1931 p. 394.—*S. bifilaris, jenynsi*, THIELE 860.

*Sitalina* gen. n. Ariophantidae type *S. circumcincta* Reinhardt, THIELE Handb. 1 2 p. 635.

*Sitalinopsis* subgen. n. of *Kaliella* Ariophantidae type *K. (S.) conulus* Blv. fig., THIELE Handb. 1 2 p. 612.

*Striakaliella* sec. n. of *Kaliella* (Ariophantidae) type "*Sitala*" *crenecincta* Godwin Austin, THIELE Handb. 1 2 p. 613.

*Trochomorpha apicis* sp. n. Timao-Bey, RENSCH Zool. Jahrb. Jena (Syst.) 60 1931 p. 441 pl. v ff. 2 a-b.

*Trochozonites hintzi, conulus monticola* spp. n., THIELE SitzBer. Ges. naturf. Fr. Berl. 1930 8-10 1931 p. 396.

*Vaginulus* H. B. BAKER 46.

*Veronicella (Tenacipes) tenax* sec. et sp. n. Cuba, H. B. BAKER Nautilus 44 p. 131 pl. viii f. 3-5.

*Vitrina* type *V. pellucida*, [STILES] 824.—*V. variopunctata* sp. n. Uganda, CONNOLLY A.M. Nat. H. (10) 8 p. 313 pl. x if. 1-3 text-figs. of radula—*V. (Oligolimax) scythica* sp. n., PUSANOW Bull. Soc. N. Am. Simperopol 8 p. 113 figs.

*Zonites somaliensis* sp. n. Somaliland, CONNOLLY A.M. Nat. H. (10) 8 p. 324 pl. xi f. 9-11.

Zonitidae, BROOKS 134.

*Zonitoides nitidus*, RAWSON 712.—*Z. arboreus* Say, WILLIAMS 948.

## HELICIDAE.

*Amphidomus [Amphidromus]*, DICKERSON 227.—*A. reflexilabris hanielanus contrarius hanieli, c. nikiensis* vars. n. Timor, RENSCH Zool. Jahrb. Jena (Syst.) 60 1931 pp. 448-451.

*Arianta arbustorum*, ANDRE & LAMY 12.—OLDHAM 611.—*A. chamaeleon* anatomy figs., HESSE 382.

*Asperitas inquinata* vars. *ofuensis, barbarensis, batudulangensis* var. n. Timor, RENSCH Zool. Jahrb. Jena (Syst.) 60 1931 pp. 436-440 pl. v.

*Averellia (Trichodiscina) coactiliata*, PILSBRY 657.

*Baudinella* sec. n. of *Angasella*, type *A. (B.) baudinensis* (E. Smith) Pleurodontidae, THIELE Handb. 1 2 p. 685.

*Cathaica pyrrhizona, yantaiensis houaiensis richthofeni*, JACOT 407.

*Cepaea hortensis*, BERLIN 78.—*C. nemoralis, sylvatica*, BOETTGER 105.—*Cepaea*, DIVER 228.—*C. nemoralis*, ELOFF 252.—*C. hortensis, nemoralis*, HENKEL 371.—*C. nemoralis* L., KUNTZ p. 608 474.

*Chilotrema lapicida*, HENKEL 371.

*Chloritis (Trichochloritis) tosanus okiensis* figs., TAN 847.

*Ciliella ciliata* anatomy figs., HESSE 382.

*Circassina frutis*, *mingrelica* anatomy figs., HESSE 382.

*Congohelix* gen. n. *C. langi* böttgeri var. n., PFEFFER Mitt. Zool. Staatsinst. & Mus. Hamburg 44 1931 pp. 247, 272.

*Elgonella kilimae*, G. PFEFFER 654.

*Enteroplax* (sec. of *Plectopylis*), PILSBRY 656.

*Eobania vermiculata*, K. ZIMMERMANN 977.

*Euhadra mercatoria perversa*, PILSBRY Nautilus 45 1 p. 30 668.—*E. grata emurai*, g. *tobisimae senckenbergiana daisenica* subspp. n. Japan, KURODA Venus 3 50–52 figs.—*E. herklotsi*, fig., TAN 847.

*Eulota*, EMURA 254.—*E. (Eulotella) similis stimpsoni*, IKEDA 398.—*E. ravida*, JACOT 407.—*E. similis*, MOHR 567.—*E. despecta*, OKADA 607.—*E. (Acusta) sieboldiana* "minor Gude," TAKI 843.—*E. similis* fig., WILLIAMS 948.—*E. (Acusta) assimilis, toyen-mongaiensis*, YANAGIHARA 969.

†*Eulota (Cathaica) pyrrhizona schensiensis* figs., PING 680.

*Euomphalia strigella, bactriana, selecta tschorochensis, pisiformis, ravergiensis, appeliiana, euages, gagriensis, adshariensis* anatomy figs., HESSE 382.

*Euparypha pisana*, H. F. 346.

*Fruticicola villosa, thalestris, caucasica, holotricha, abchasica armeniaca, eichwaldi* anatomy figs., HESSE 382.—*F. villosa*, LAIS 493.

*Fruticocampylaea narzanensis, jaonnis pratensis*, anatomy figs., HESSE 382.

*Ganesella*, KAWASHIMA 438.—*G. (?) modesta* sp. n. Admiralty Id., RENSCH Zool. Anz. Leipzig 95 p. 192.

*Gonyodiscus cronkhitei anthonyi* Pilsbry, figd., MOZLEY 579.

*Halolimnolix karevia, bukobae*, G. PFEFFER 654.

*Helicella virgata*, COOPER 184.—*H. gestroi* [n. n.], GESTRO & VINCIGUERRA 314.—*H. ericetorum, obvia, candidula*, GEYER 317.—*H. (Jacosta?) multipunctata*, fig., ODHNER 599.—*H. itala* Scalariform, SOWDEN 802.—*H. virgata, barbara*, WELCH 940.

Helicidae, BROOKS 134.

*Helicigona (Arianta) arbustorum*, BOETTGER 105.—*Helicigona planospira, illyrica setulosa, lefeburiana, macrostoma, argentellei, pterolakae, dochii, insolita, narentana, trizona, cingulella, rossmaessleri, cyclolabris, heldreichi, ambrosi, cornea, zieglerei, alpina, frigida, banatica, ichthyomma, cingulata, faustina, achates fontenillii, pouzolzi* anatomy figs., HESSE 382.

*Helicodonta angigyra, obvoluta*, anatomy figs., HESSE 382.—*H. obvoluta*, DALGLIESH 212.

*Helicostyla cepoides*, CLENCH & ARCHER 165.—*H. cincinniformis lubanensis, ultima, demesana* vars. n. Lubang Id., CLENCH & ARCHER Occ. Pp. Boston Soc. Nat. Hist. 5 1931 pp. 334–336 pl. xvii.

*Helminthoglypta cuyamacensis*, S. C. FIELD 268.—*H. granitica arida* subsp. n. California, PILSBRY & FIELD Nautilus 45 1 p. 20 pl. vii (vol. 44) f. 5.—*H. greggi* sp. n. California, G. WILLETT Nautilus 44 p. 124 pl. vii f. 3.—*H. traski pacoinensis* subsp. n. *H. fontiphila* sp. n. Calif., GREGG Nautilus 45 pp. 48, 49 pl. iv.

*Helix aperta, aspersa, vermiculata pisana*, ARVANITAKI & CARDOT 26.—BERNARD 79.—"Outgrowths," GATENBY 306; D. GEYER 315; JAQUET 409; LANG 506.—(Orkney) RENDALL 722.—Scalariform, SOWDEN 802; STELFOX 817; WELCH 938.—*H. elegans*, MERCIER 555.—*Helix [Cepaea] hortensis sinistral*, STUBBS 830.—*H. [Cepaea] nemoralis* "Mal." SEABRA 782.—*H. personata* BABOR & FRANKENBERGER 37.—*Helix pomatia*, BANK 50; BERNARD 79; BLANC & OTHERS 98; BRAND 131; COUVREUR 193.—(Monograph) P. H. FISCHER 275; FROMMING 295; HABERLANDT 354; HENKEL 371; HERTER 377, 379, 380; JULLIEN & MORIN 429; KRAJCIK 467; MANSOUR-BEK & OTHERS 540; RAFFY & FISCHER 700; Anatomy, ROTARIDES 748; SCHREIBER 780; VOLVERKAMP 959.—*H. revelata*, CAZIOT 151.—*H. whitneyi*, BAKER, H. B. 44.

*Hemicycla ethelema, gaudryi* v. *bituminosa* figs., ODHNER 599.

†*Hygromia (Metodontia) houaiensis* figs., PING 680.



*Lejeania darnaudi*, *isselii*, *rosenbergi*, *leucosticta*, *jickelii*, *scioana*, G. PFEFFER 654.

*Leucochroa piestia*, *cariosula*, *mayrani*, *hierochuntina*, *fimbriata*, *cariosa*, *adanensis*, *boissieri* anatomy figs., HESSE 382.

*Mandarina mandarina*, *pallasiana*, *luhuana*, KURODA 475.

*Martha instabilis* Rossm. f. typ. & subsp. *Jacknoi* Cl., *M. cereoflava* Blz. subsp. *podolica* Pol., KUNTZE p. 684 474.

*Metafruticicola nicosiana*, *pellita*, *redtenbacheri*, anatomy figs., HESSE 382.

*Metatheba samsunensis*, *orientalis*, *subcarthusiana*, anatomy figs., HESSE 382.

*Micrarionta kelletti*. FIELD 267.—*M. hutsoni ampoiana* subsp. n. California, G. WILLETT Nautilus 44 p. 123 pl. vii f. 4.

†*Microphysula oxyaenae*, *sinoparum*, RUSSELL 754.

*Mikenoella gregorii*, G. PFEFFER 654.

*Monacha lanuginosa*, *transsilvanica inchoata* anatomy figs., HESSE 382.

*Monadenia fidelis pronotis* subsp. n. California, S. S. BERRY Nautilus 44 p. 122.

*Monilearia persimilis* fig., ODHNER 599.

*Murella globularis transiens* p. 103 pl. ix f. 24.—*M. platychela excelsa* subsp. n. Sicily, K. L. PFEIFFER Archiv f. Moll. 63 3 p. 105 pl. ix f. 30.

*Oreohelix*, BERRY S. S. 81; HENDERSON, J. 368.

†*Oreohelix megarche*, *grangeri*, RUSSELL 754.

*Papuina astridae*, *manokwariensis* spp. n. East Indies, DUPUIS Bull. Mus. H.N. Belg. 7 pp. 3, 5 figs.—*P. pulcherrima*, *klaarwateri*, *admiralitatis* spp. n., RENSCH Admiralty Id. Zool. Anz. Leipzig 95 pp. 187–188 figs.

*Perforatella bidens* anatomy figs., HESSE 382.

*Planispira zodiacus*, *bulbulus*, *neumayri*, JOLTOS 421.

*Plectotropis*, DICKERSON 227.

*Polygyra espiloca*, W. E. BURNETT 145.—*P. columbiana megasoma*, PILSBRY 661.—*P. mullani tuckeri* sp. n., PILSBRY & HENDERSON Nautilus 44 p. 121 pl. v.

†*Polygyra multilineata altonensis*, *m. wanlessi*, *profunda pleistocenica*, *monodon peoriensis*, *hirsuta yarmouthensis* figs., F. C. BAKER 41.—*P. veterior*, *eohippina* RUSSELL 754.

*Polygyroidea harfordiana*, SMITH, A. G. 794.

*Pyrenaearia carascalensis* anatomy figs., HESSE 382.

*Strophocheilus* (*Megalobulimus*) *carrikeri* sp. n. Peru, PILSBRY Proc. Acad. Nat. Sci. Philad. 82 1930 p. 355 pl. xxxi f. 2, 3.

*Suavitas monteplatonis* nom. n. for *Helix effusa* Pfr. non Fisch. de Waldheim, PILSBRY Nautilus 45 p. 72.

*Theba bicincta*, *cantiana*, *dofleini*, *martensiana*, *olivieri*, *obstructa*, *schotti*, *syriaca*, *teheranensis*, *crispulata*, *ignorata*, *melitenensis*, *nummus*, *elevata*, *rothi*, *fruticola*, *syriaca*, *gregaria*, *orsinii*, *parreysi* anatomy figs., HESSE 382.

*Trigonephrus lucanus nana* var. n. Namaqualand T. *haughtoni* sp. n. Namib S.W. Africa, CONNOLLY A.M. Nat. H. (10) 8 pp. 306–307 pl. x f. 6–8.

*Trochula elegans*, WILKINS 944.

*Urguessella conradti*, G. PFEFFER 654.

*Xerophila candidula*, *ericetorum* HENKEL 371.—*X. obvia* Hart, KUNTZE p. 684 474.

## ENDODONTIDAE.

Endodontidae, BROOKS 134.

*Garrettina* nom. nov., type *G. subcavernula* (Tryon) fig., for *Libera* Garrett non (Pease) Paetel = *Garrettia* Cossmann non (Pease) Paetel Endodontidae, THIELE Handb. 1 2 p. 572.

*Gonyodiscus rotundatus*, BOETTGER 104.—*G. scutula* fig., ODHNER 599.

†*Gonyodiscus shimekii*, *macclintocki*, figs., F. C. BAKER 41.—*G. ralstonensis*, RUSSELL 754.

*Nesodiscus* gen. n. type *N. fabrefactus* (Pease) of Endodontidae, THIELE Handb. 1 2 p. 571 fig.

*Notodiscus* gen. n. type *N. hookeri* (Reeve) of Endodontidae, THIELE Handb. 1 2 p. 575.

*Punctum* (*Toltecia*) *vitreum* sp. n. Chapultepee Mexico, H. B. BAKER Occ. Pp. Mus. Zool. Univ. Mich. 220 1930 p. 9 pl. vii ff. 3–6.

*Radiodiscus (R.) abiatum* foot of p. Moll. 83 Z.R. 1930 should be in Endodontidae.

*Radiodiscus proameri* sp. n. Necaxa Mexico, H. B. BAKER Occ. Pp. Mus. Zool. Univ. Mich. 220 1930 p. 13 pl. vii fig. 7-9.

*Rotadiscus hermanni nivatus* subsp. n. nr. La Venta Mexico, H. B. BAKER Occ. Pp. Mus. Zool. Univ. Mich. 220 1930 p. 12.

*Trachycystis approximans* sp. n. Cape, CONNOLLY A.M. Nat. H. (10) 8 p. 308 pl. x f. 2-4.

#### ORTHALICIDAE, BULIMULIDAE, UROCOPTIDAE.

*Auris (Antitragus) gibber* subgen. et sp. n. Venezuela, OBERWIMMER Senckenbergiana 13 pp. 192-194 figs.

*Bulimulus hendersoni* nom. nov., MARSHALL Nautilus 44 3 p. 100.—*B. (Protyglyptus) weeksi* Peru pl. xxxi f. 9, *tabularis* Bolivia pl. xxxi f. 5-9 spp. n., PILSBRY Proc. Acad. Nat. Sci. Philad. 82 1930 p. 357 pl. xxxi f. 9.

†*Eucalodium eophilum* "Incertae sedis," RUSSELL 754.

*Eurytus fusitortus* sp. n. Venezuela, OBERWIMMER Senckenbergiana 13 p. 190 figs.

†Grangerellidae fam. n. with Grangerella, RUSSELL Bull. Amer. Paleont. Ithaca 18 64 p. 25.

*Liguus fasciatus*, JAECKEL 408.

*Liguus*, W. J. CLENCH 162.

*Macrodonates thielei* sp. n. Brazil, PILSBRY Proc. Acad. Nat. Sci. Philad. 82 1930 p. 360 pl. xxxi f. 1.

*Macrodonatopsis* type *M. (M.) simplex* Thiele, sec. n. of *Macrodonates*, *Bulimulidae*, THIELE Handb. 1 2 p. 662.

*Oxystyla capax* sp. n. Brazil, PILSBRY Proc. Acad. Nat. Sci. Philad. 82 1930 p. 359 pl. xxviii f. 12-14.

*Plekocheilus manco* sp. n. Peru?, PILSBRY Proc. Acad. Nat. Sci. Philad. 82 1930 p. 356 pl. xxxi f. 4.

*Pseudoxychona* sec. n. of *Bulimulus* type *Oxychona spiritalis*, PILSBRY Proc. Acad. Nat. Sci. Philad. 82 1930 p. 356.

*Scansicohlea* subgen. n. of *Bulimulus* type *B. bromeliarum* sp. n., PILSBRY Proc. Acad. Nat. Sci. Philad. 82 1930 p. 358 (genitalia figd.) pl. xxxi f. 11, 12.

*Thaumastus cadwaladeri* sp. n. Peru, PILSBRY Proc. Acad. Nat. Sci. Philad. 82 1930 p. 355 pl. xxxi f. 10.—*T. thompsonoides* sp. n. Ecuador, OBERWIMMER Senckenbergiana 13 p. 194 figs.

#### OLEACINIDAE, TESTACELLIDAE.

*Artemoniheringi* sp. n. p. 362, pl. xxxii f. 6, 6a, 6b, *A. iguapensis* p. 363 pl. xxxii f. 4, 4a, 4b sp. n., *A. intermedius*: *piquetensis* subsp. n. p. 365 pl. xxxii f. 5, 5a, 5b, *A. pfeifferi* nom. n. for *H. spixiana* Pfr. Syst. Con. Cab. 1 p. 156. not Pfr. 1841 p. 365, PILSBRY Proc. Acad. Nat. Sci. Philad. 82 1930.

*Augustula* gen. n. Streptaxidae type *A. braueri* (Martens), THIELE Handb. 1 2 p. 727.

*Daudebardia*, Soós 799.—*D. cavicola*, H. WAGNER 921.

*Drymaeus shattucki* sp. n. Yucatan, BEQUAERT & CLENCH Occ. Pp. Boston S.N.H. 5 p. 424.

*Euglandina lowei* sp. n., PILSBRY Nautilus 44 3 p. 83 pl. v f. 5.

*Gulella carpenteri excruciat* spp. n. Uganda, CONNOLLY A.M. Nat. H. (10) 8 pp. 311-312 pl. x f. 9 & xi f. 4.

Haplotrematidae, BROOKS 134.

"*Helix*" *belcheri* Pfeiffer, TOMLIN Nautilus 45 1 p. 30 876.

*Oleacina* type *O. voluta*, [STILES] 824.

*Paryphanta*, BARRETT 52.

*Spiraxis (Volutaxis) maya* sp. n. Yucatan, BEQUAERT & CLENCH Occ. Pp. Boston S.N.H. 5 423.

*Streptaxis contusus saopaulensis* subsp. n. Brazil, PILSBRY Proc. Acad. Nat. Sci. Philad. 82 1930 p. 361 pl. xxxii f. 2, 2a.

*Streptostele suradensis* sp. n. Somaliland, CONNOLLY A.M. Nat. H. (10) 8 p. 323 pl. xi f. 12.

*T[estacella] maugei*, STELFOX 818.

Testacellidae, BROOKS 134.

#### PUPILLIDAE, CLAUSILIDAE, STENOGYRIDAE, HELICTERIDAE.

*Acanthinula lamellata* fig., ALTENA 10.

Achatinidae, BROOKS 134; embryoradula, PEILE 641.

*Achatinus*, [STILES] 824.

*Alopias mariae*, *hildegardae*, *occulta*, *fortunata* spp. n. Rumania, KIMAKOWICZ Archiv f. Moll. 63 1 pp. 40-42 Taf. 2.

*Bacillum cassiacum*, sinistral, PEILE 640.

*Bocageia carpenteri* sp. n. Uganda, CONNOLLY A.M. Nat. H. (10) 8 p. 319 pl. xii f. 5 text-figs. rad.

*Cerastus achatinoides* sp. n. Somaliland, CONNOLLY A.M. Nat. H. (10) 8 p. 328 pl. xi f. 8.

*Cerion*, BARTSCH 53.—*C. viaregis*, *incanum*, *peracuta*, *tridentata*, BARTSCH 59.—*Cerion* type *C. uva*, [STILES] 824.

*Chondrina clienta caucasia* subsp. n. Caucasus, EHLMANN Archiv f. Moll. 63 1 p. 19 t. 1 f. 4.

*Chondrula caprae* [n. n.], GASTRO & VINCIGUERRA 314.

*Clausilia*, DICKERSON 227; GEYER 317.—*C. thermopylarum*, PEILE 642.—*Clausilia* type *C. rugosa*, [STILES] 824.—*C. reshtensis* sp. n. Persia, BIGGS J. Conch. Lond. 19 p. 164 fig.—*C. orites* sp. n. Pahang, LAIDLAW J. Conch. Lond. 19 p. 163 fig.

Cochlicopidae, BROOKS 134.

*Cochlodina marginata*, Soós 798.

*Coelostrobilops* sect. n. type *Strobilops wenziana*, PILSBRY Man. Conch. (2) xxviii pt. 110 p. 60 pl. xiii f. 1-7.

*Ena montana*, BOYCOTT 128.—*E. obesata* v. *halmyris* (*flavoterminalata*) fig., ODHNER 599.—*E. (Mirus) reiniana extorris*, TAKI 834.

*Euaethiops obtusa* sp. n. Uganda, CONNOLLY A.M. Nat. H. (10) 8 p. 314 pl. xii f. 10-12.

*Fauxulus barnardi* sp. n. Cape, CONNOLLY A.M. Nat. H. (10) 8 p. 309 pl. x f. 5.

*Gastrocopta duncana* sp. n. Galapagos, PILSBRY Man. Conch. (2) xxviii pt. 100 p. 65 pl. xvii f. 1, 2.

*Geostilbia baldwini* fig., WILLIAMS 948.

*Glessula*, DICKERSON 227.

*Graciliaria concilians*, Soós 798.

*Heudiella phaedusoides* nom. n. for *Ena* (H.) *clausiliaeformis* Bavay & Dautzenberg, THIELE Handb. 1 2 p. 521.

*Homorus malleatus*, *velutinus* spp. n. Uganda, CONNOLLY A.M. Nat. H. (10) 8 pp. 315, 316, pl. xii f. 4; xi f. 6, 7 text-figs. rad.—*H. cyanostomus* figd., GERMAIN 311.

*Lauria*, PILSBRY 656.—*L. cylindracea cymmerica* subsp. n., PUSANOW Bull. Soc. N. Am. Simperopol 8 p. 116 figs.

*Leucochilus*, [STILES] 824.

*Limicolaria chudeaui*, figd., GERMAIN 310.

*Nesostrobilops* sect. n. type *Strobilops helleri* (Dall.), PILSBRY Man. Conch. (2) xxviii pt. 110 p. 62 pl. xvi f. 1, 1a, 2, 2a.

*Nothapalus innotabilis* sp. n. Uganda, CONNOLLY A.M. Nat. H. (10) 8 p. 318 pl. xi f. 5.

*Ochrodermatina* sec. n. type *O. carolinum* Martens, of *Ochroderma* Ancey, Subulinidae, THIELE Handb. 1 2 p. 552.

*Opeas gracile*, MOHR 568.—*O. micra mazatlanica* subsp. n., PILSBRY Nautilus 44 3 p. 82 pl. v f. 12.

†*Opeas lata*, *fragilis* figs., PING 680.

*Orcula tomlini* sp. n. Tripoli, CONNOLLY A.M. Nat. H. (10) 8 306 pl. x f. 1.—*O. fuchsi* sp. n., S. ZIMMERMANN Archiv f. Moll. 63 1 p. 44 pl. iv.

*Partula cytherea*, *lanceolata*, *thurstoni*, *montana* spp. n., COOKE & CRAMPTON Occ. Pp. Bernice Bishop Mus. 9 11 1930 pp. 1-9 pl. i.

*Phaedusa* (*Tyrannophaedusa*) *bila-brata*, TAKI 843.—*P. graciae*, *pigra*, *japonica*, *variegata* figs., TAN 847.

*Proreinia* sect. n. type *R. (P.) eastlakeana* Mlldf. of *Reinia* Clausiliidae, THIELE Handb. 1 2 p. 531.

*Pseudonapaeus apertus*, RENSCH 726.

Pupillidae, BROOKS 134; PILSBRY 656.

*Pupisoma comicolense* sp. n. Necaxa Mexico, H. B. BAKER Occ. Pp. Mus. Zool. Univ. Mich. 220 1930 p. 3 pl. vii ff. 1, 2.

*Pupoides eupleura* sp. n. South Utah CHAMBERLIN & BERRY Proc. Biol. Soc. Washington 44 p. 7.

*Rachis*, CONNOLLY 175.

*Roseniella* nom. nov. type *A. (R.) sobrievskii* (Rosen) for *Thalestris* Lindholm non Claus = *Rosenia* Hesse non Schepman, of *Acrotoma* Clausiliidae, THIELE Handb. 1 2 p. 536.

*Spaniodontella*, KAMANIN & SLOD-  
KIEVIĆ 432.

*Strobilops*, JONES 422; PILSBRY 656.  
—*S. hanna* sp. n. Socorro Id. off  
western Mexico, PILSBRY Man. Conch.  
xxviii pt. 110 1931 p. 59 pl. xvi f. 3, 3a, 4.

Strobilopsidae, BROOKS 134.

*Subulina octona*, WILLIAMS 336 948.

†*Subulina octona*, MOHR 567.

*Themapupa* gen. n. Pupillidae, IRE-  
DALE Vict. Natlist. 1930 [omission].

*Tornatellina* type *T. clausa*, [STILES]  
824.

Valloniidae, BROOKS 134.

*Vertigo substriata* fig., ALTENA 10.—  
*Vertigo*, PILSBRY 656.

†*Vertigo loessensis* fig., F. C. BAKER  
41.

*Xerocera*stus, CONNOLLY 176.

*Zebrina detrita*, HENKEL 371.

*Zebrinops* gen. n. of Enidae type *Z.*  
*revoili* Bourguignat, THIELE Handb. 1  
2 p. 525.

*Zebrinus detritus*, J. PETRBOK 647.

*Zospeum globosum* sp. n. Piccoli Triest  
[45° 55½ N. 28° 55½ E. 950 m. alt.],  
KUSCER Studi Trentini 9 (2) 1928 p. 185  
fig.

### SUCCINEIDAE.

*Myxas straeleni* sp. n. Lake Takengon  
Sumatra, DUPUIS Bull. Mus. H.N. Belg.  
7 p. 7 fig.

*Succinea putris*, FROMMING 294;  
HENKEL 371; ROSTRUP & THOMSEN  
744.—*S. ovalis*, HICKMAN 385.—*S.*  
*retusa*, RAWSON 712.

†*Succinea ovalis pleistocenica*, gros-  
venori, gelida, retusa fultonensis figs.,  
F. C. BAKER 41.—*S. granata* sp. n.  
Pliocene Mongolia, PING Bull. Geol.  
Soc. China 10 p. 235.—*S. niangtzeiensis*,  
*elegans*, spp. n. hopeiensis nom. n. for  
*S. debilis* Ping, PING Palaeont. sinica  
B 6 6 pp. 24–27 pl. ii and text-fig.

Succineidae, BROOKS 134.

### Scaphopoda.

*Cadulus dalli antarcticus* var. n.  
Antarctic, ODHNER Further Zool. Res.  
Swed. Aut. Exp. 2 p. 5 pls. i, ii.

†*Cadulus (Gadilopsis) prosperus* sp. n.  
Oligocene N.Z., MARWICK Palaeont.  
Bull. N.Z. 13 1931 p. 159 fig.

*Dentalium entale*, LÖNNBERG 519.—  
*Dentalium*, PENNERS 644.—*D. octangu-*  
*latum*, *hexagonum formosum*; *D. (Anta-*  
*lis) weinkauffi*, *buccinulum pretiosum*;  
*D. (Fissidentalium) vernedei*, *hunger-*  
*fordi*; *D. (Laevidentalium) lubricatum*;  
*D. (Graptacme) aciculum*; *D. (Fustiaria)*  
*numatai* sp. n. J. Conch. 19 5 p. 139 all  
figd., HIRASE.—*D. infractum* sp. n.,  
*majorinum Grahamense*, var. n. Ant-  
arctic, ODHNER Further Zool. Res.  
Swed. Aut. Exp. 2 pp. 1, 4 figs. pls. i, ii.  
—*D. subterlineatum*, (*Fissidentalium*)  
*salpina*, *platypleurum*, (*Compressidens*)  
*capense* spp. n., TOMLIN Ann. S. Afr.  
Mus. 29 2 1931 pp. 337–340 figs.

†*Dentalium aratorum*, COX 198.—*D.*  
*rugiferum*, *mediaviense*, GARDNER 302.  
—*D. hangense* sp. n. Tertiary India,  
COX Mem. Geol. Surv. India (N.S.) 15  
p. 203 pl. xxi ff. 12 a–c, 13 a–b.—*D.*  
*bironense* sp. n. Eocene France, Dou-  
VILLÉ & O'GORMAN Bull. Soc. géol.  
Fr. 29 6–7 p. 374 pl. xxxii.—*D. ihungia*,  
*D. (Laevidentalium) filum*, *pareorense*  
spp. n. Oligocene N.Z., MARWICK  
Palaeont. Bull. N.Z. 13 1931 p. 158 figs.  
—*D. mancorens*, *yasilum* spp. n. Eocene  
Peru, OLSSON Bull. Amer. Paleont. 17  
62 pp. 71, 72 pl. xii ff. 12, 13, 14–20.—  
*D. tigillum* sp. n. Neogene Japan,  
YOKOYAMA J. Fac. Sci. Univ. Tokyo  
3 1931 p. 194 pl. xi f. 5, 6.

†*Plagioglypta meekiana* fig., PLUM-  
MER & MOORE 681.

*Siphonodentalium (Pulsellum) ozawai*  
figd., HIRASE 388.

### Pelecypoda or Lamellibranchia.

#### PROTOBRANCHIA.

†*Acila paita*, *piura*, spp. n. Oligocene  
Peru, OLSSON Bull. Amer. Paleont.  
Ithaca 17 63 pp. 34, 35, pl. ii.

†*Buchiola retrostriata*, *conversa*,  
*scabrosa*, BURGESS 142.

*Deminucula* type *Nucula praelenta*,  
IREDALE Rec. Aust. Mus. 18 4 p. 202.

*Ennucula* gen. n. type *Nucula obliqua*  
Lk., *E. astricta*, *duritas* spp. n., IREDALE  
Rec. Aust. Mus. 18 4 p. 202.

†*Kalayoldia* sec. n. of *Yoldia* with  
type *Y. cooperi* Gabb. Miocene to recent,  
GRANT & GALE Mem. S. Diego Soc.  
N.H. 1 pp. 13, 128.

*Leda pernula*, LÖNNBERG 519.—*L. (Ledella) modesta*, (L.) spreta, (L.) *aequatorialis*, *L. prostrata*, *sinuata*, *silicula*, *jovis*, *cygnea* spp. n., THIELE & JAECKEL Wiss. Erg. Deutsch. Tiefsee-Exped. 21 1 1931 pp. 202-205 pls. ii, iii.

†*Leda deshayesiana*, BREDDIN 132.—*L. fragilis*, PATRINI 634.—*L. bellistriata* figs., PLUMMER & MOORE 681.—*L. dammariensis*, REED 715.—*L. woodworthi* sp. n. Santa Catharina, OLIVEIRA Ann. Acad. Brasil Sci. Rio 2 1 1930 p. 20 fig.—*L. stewardi*, *L. (Saccella) miradorana*, *charanica*, spp. n. Oligocene Peru, OLSSON Bull. Amer. Paleont. Ithaca 17 63 pp. 36, 37, pls. i, ii.—*L. (Ledina) barranea* sp. n. Eocene Peru, OLSSON Bull. Amer. Paleont. 17 62 p. 19 pl. i ff. 3, 6, 7.—*L. angulatostrata* sp. n. Jurassic Spitzbergen, SOKOLOV & BODYLEVSKY Skr. Svalbard Ish. Oslo 35 p. 66 pl. xii.—*L. uncifera* sp. n. Poudingue Belgium, VINCENT Mems. Mus. N.H. Belg. 46 p. 63 pl. iii f. 10.

†*Ledaspina* gen. n. with type *L. stimulea* sp. n. Oligocene N.Z. (Nuculanidae), MARWICK Palaeont. Bull. N.Z. 13 1931 p. 53 figs.

†*Linucula* subgen. n. of *Nucula* with type *N. ruatakiensis* Tertiary N.Z. Marwick, MARWICK Palaeont. Bull. N.Z. 13 1931 p. 49.

*Malletia neptuni*, *sansibarica*, *sumatrensis*, spp. n., THIELE & JAECKEL Wiss. Erg. Deutsch. Tiefsee-Exped. 21 1 1931 pp. 207-208 pl. iii.

†*Minormalletia simia*, *nasuta* spp. n. Oligocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 pp. 55-56 figs.

†*Neilo annectens* sp. n. Pliocene N.Z., POWELL Rec. Auckland Inst. Mus. 1 p. 92 f. 25.

*Nucula nucleus* shell structure, HAAS 348.—*N. hawelkai* sp. n. [n. n.], HAWELKA p. 32 360.—*N. sulcata*, LÖNNBERG 519.—*N. tenuis*, *nitida*\* [= *moorei*] *nucleus*, *radiata* *sulcata*, MOORE 572.—*N. triangularis* fig., WIRTH 956.—*N. guineensis*, *fragilis*, *somaliensis*, *sansibarensis*, *salamensis*, *suaelica*, *sultana*, (*Acila*) *jucunda*, *sericea*, *sumatrana*, *siberutensis*, *aqualis*, *semen*, *papillifera*, spp. n., THIELE & JAECKEL Wiss. Erg. Deutsch. Tiefsee-Exped. 21 1 1931 pp. 193-200 pl. ii.—*N. nitida* *moorei* nom. n. for *n. radiata* Marshall 1893, *N. hanleyi* nom. n. for *n. radiata*

Hanley in Hanley 1849 non DeKay, non Portlock, WINCKWORTH P. Malac. Soc. 19 p. 280.

†*Nucula*, ETHERINGTON 259.—*N. goldfussi*, HELLER 365.—*N. hammeri*, KIEFER 444.—*N.*, RIEDER 732.—*N. nokonis*, *wenoensis* spp. n. shale and ironstone Texas, ADKINS Bull. Univ. Texas 1856 1918 p. 118 pl. x ff. 12-16, 19-20.—*N. sindensis* sp. n. Lake Sind., Cox Tr. R.S. Edin. 57 1 p. 59.—*N. (Acila) semirostrata* sp. n. Pliocene California, GRANT & GALE Mems. S. Diego Soc. N.H. 1 pp. 12, 113 text-figs.—*N. ? paraguana* sp. n. Miocene Venezuela, HODSON Bull. Amer. Paleont. 16 60 p. 5 (99) fig.—*N. waikouraeensis*, *crepida* spp. n. Ihungia series N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 pp. 48-49 figs.—*N. (Linucula) waipaoa*, *tutamoensis* spp. n. Miocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 p. 49 figs.—*N. formosa* sp. n. Cretaceous Japan, NAGAO J. Fac. Sci. Hokkaido (4) 1 1930 p. 14, pl. ii f. 2.—*N. catalina* sp. n. Eocene Peru, OLSSON Bull. Amer. Paleont. 17 62 p. 18 pl. i f. 2.—*N. paboensis*, *mancorensis*, spp. n. Oligocene Peru, OLSSON Bull. Amer. Paleont. Ithaca 17 63 pp. 32, 33 pl. ii.—*N. triangularis* sp. n. Limestone U.S.A., SAYRE Kansas Univ. Bull. 19 p. 105 pl. viii f. 6-6c.—*N. isfjordica* sp. n. Jurassic Spitzbergen, SOKOLOV & BODYLEVSKY Skr. Svalbard Ish. Oslo 35 p. 64 pl. iv.—*N. cipliyensis* sp. n. Poudingue Belgium, VINCENT Mem. Mus. N.H. Belg. 46 p. 62 pl. iii f. 9.—*N. leufuensis* sp. n. Cretaceous Argentina, WEAVER Mems. Univ. Washington 1 1931 p. 183 pl. xiii ff. 41-43.

†*Nuculana (Saccella) waikohuensis*, *arowhana*, *andrewi* spp. n. *N. (Jupiteria) leachi*, *karaka*, *nugax*, *kapua*, *kouhaiensis*, *nawa*, *totangiensis*, *N. fluvilutea* Oligocene and Miocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 pp. 51-53 figs.—*N. ochsneri elmana* var. n. Miocene U.S.A. Etherington Miocene U.S.A., ETHERINGTON Univ. Calif. Pub. Geol. 20 5 p. 66.—*N. (Saccella) waikhiana* sp. n. Pliocene New Zealand, POWELL Rec. Auckland Inst. Mus. 1 2 1931 p. 91 fig. 15.

†*Pronucula totangiensis* sp. n. Ihungia Series N.Z., MARWICK Palaeont. Bull. N.Z. 12 1931 p. 50 figs.

†*Propeleda trulliformis* sp. n. Oligocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 p. 54 fig.



*Solemya velesiana* sp. n. Sydney, IREDALE Rec. Aust. Mus. 18 4 p. 201.

†*Solemya*, ETHERINGTON 259.—*S. (Solemya) lomitensis*, (Acharax) *belensis*, spp. n. Oligocene Peru, OLSSON Bull. Amer. Paleont. Ithaca 17 63 p. 31 pl. iii.

*Solemyarina* gen. n. type *Solemya velesiana*, IREDALE Rec. Aust. Mus. 18 4 p. 202.

†*Solenomya radiata*, LEBEDER 509.—*S. ? hoeli* sp. n. Jurassic Spitzbergen, SOKOLOV & BODYLEVSKY Skr. Svalbard Ish. Oslo 35 p. 75 pl. iv f. 1.—*S. hanonica* sp. n. Tuffeau Belgium, VINCENT Mem. Mus. N.H. Belg. 46 p. 63 pl. iii f. 11.

*Tindaria antarctica*, *nuculiformis*, *siberutensis*, (*Neilonella*) *guineensis*, (*N.*) *lediformis*, *aequatorialis* spp. n., THIELE & JAECKEL Wiss. Erg. Deutsch Tiefsee-Exped. 21 1 1931 pp. 208–210 pl. iii.

*Truncacila* sec. n. type *Nucula castrensis* Hinds and Pliocene and Pleistocene Calif., GRANT & GALE Mem. S. Diego Soc. N.H. 1 pp. 13, 115.

*Yoldia arctica* et subspp. figs., MOSSEWITSCH 578.—*Y. (Yoldiella) siberutensis*, (*Y.*) *aethiopica*, (*Y.*) *exigua*, (*Y.*) *gibbosula*, (*Y.*) *nanula*, (*Adranella*) *sundaica*, *Y. kerguelensis*, *semisculpta* spp. n., THIELE & JAECKEL Wiss. Erg. Deutsch. Tiefsee-Exped. 21 1 1931 pp. 205–206 pl. iii.

†*Yoldia*, ETHERINGTON 259.

†*Zealeda inflatella*, *concentrica*, spp. n. Oligocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 pp. 54, 55 figs.

#### FILIBRANCHIA.

#### ANOMIACEA.

*Anomia ephippium* fig., LAMY 499; LÖNNBERG 519.

†*Anomia*, REESIDE & WEYMOUTH 718.

*Placuna placenta*, TALAVERA & FAUSTINO 844.

#### ARCEACEA.

*Acar, Arca gradata* Brod. & Sow. (type) *gradata* p. 2 pl. i, *panamensis* p. 3 pl. i, spp. n. Mazatlan, BARTSCH Proc. U.S. Nat. Mus. 80 9 p. 3 figs.

*Arca*, KOKUBO 461.—*A. (Trigonoarca) maresi* f., LOMBARD 518.—*A.*

*kiyonoi* sp. n. Japan, J. MAKIYAMA Venus 2 6 1931 p. 269 figs.—*A. inflata*, SATO 759.—*Arca (Fossularca) sinensis* p. 174 pl. i f. 7; *polycymoides* p. 174 pl. i f. 8; (*Barbatia*) *aequilateralis* p. 175 pl. i f. 9; (*Scapharca*) *aethiopica* p. 175 pl. i f. 10 a–b; (*Noetiella*) *congoensis* p. 176 pl. i f. 11; (*Acar*) *agulhasensis* p. 177 pl. xii; (*Bathysarca*) *orientalis* p. 179 pl. i f. 14; (*B.*) *coccus*, (*B.*) *cuculliformis* p. 180 pl. i f. 15, 16 spp. n., THIELE & JAECKEL Wiss. Erg. Deutsch Tiefsee-Exped. 21 1 1931 pp. 174–180 pl. i.

†*Arca tetragona*, *altavillensis*, *barbata*, *lactea*, *diluvi*, PATRINI 634.—*A. ferruginea*, *granosa*, *tenebrica* figs., W. D. SMITH 795.—*A. washitaensis* sp. n. Clay Texas, ADKINS Bull. Univ. Texas 1856 1918 p. 121 pl. x f. 5.—*A. devincta montesanoana* subsp. n. Miocene Washington Miocene U.S.A., ETHERINGTON Univ. Calif. Pub. Geol. 20 5 69 f.—*A. (Arca) trilineata* Conrad *calcareia* var. n. *A. (A.) perlabiata*, *A. (Navicula) terminumbonis* spp. n. Pliocene California, GRANT & GALE Mem. S. Diego Soc. N.H. 1 pp. 12, 140–142.—*A. (Argina) puntabaroensis*, *A. (Scapharca) meroensis*, spp. n. Oligocene Peru, OLSSON Bull. Amer. Paleont. Ithaca 17 63 pp. 38–39 pl. ii.

†*Barbatia corneti*, *B. (Plagiarca) cipyensis* spp. n. Poudingue Belgium, VINCENT Mem. Mus. N.H. Belg. 46 pp. 69, 70 pl. iii f. 18, 19.

†*Cardiola acuminata*, *steinhornensis* spp. n., EICHENBERG Jahrb. preuss. geol. LdAnst. 51 1 p. 383.

*Cosa sagana*, *pharetra* spp. n., IREDALE Rec. Aust. Mus. 18 4 p. 204.

†*Cratis ovata* sp. n. Oligocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 p. 60 fig.

†*Cucullaea neuquensis*, *lotenoensis*, *mendozaana* spp. n. Cretaceous Argentina, WEAVER Mem. Univ. Washington 1 1931 pp. 186, 187, 190 pls. xiii ff. 45–47, 49, 50.

†*Cyrtodontula* with genotype *Whitella obliquata* Ulrich nom. n. for *Whitella* Ulrich 1890 non Spinola 1850 (Hemiptera), TOMLIN P.M.S. 19 p. 175.

†*Glycimeris*, BEEBE 64.—*G. vitreus* Lk. fig. pl. ix, W. D. SMITH 795.—*G. marshalli* sp. n. Tertiary N.Z., LAWS Trans. Proc. N.Z. Inst. 61 3–4 1930 p. 547 pl. xci.—*G. lloydsmithi floridana*

subsp. n. Tertiary S. Florida, MANSFIELD Pr. U.S. N. Mus. 79 p. 8 pl. iii f. 4, 5.—*G. (Da Costa) rectidorsalis reevei, mahiana* spp. n. Oligocene and Miocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 pp. 57, 58 figs.—*G. amakusensis* sp. n. *a. solida* var. n. Cretaceous Japan. NAGAO J. Fac. Sci. Hokkaido (4) 1 1930 p. 15 pl. ii f. 4-7; p. 16 pl. iii f. 13-14.—*G. peruvianus* sp. n. Eocene Peru, OLSSON Bull. Amer. Paleont. 17 62 p. 20 pl. i f. 4.

*Grandaxinaea* gen. n. type *Glycymeris magnificens*, IREDALE Rec. Aust. Mus. 18 4 p. 202.

†*Isoarca etalloni* sp. n. Champlitte, MAIRE Bull. Soc. Grayl. Émul. Gray 20 1928 p. 118 pl. i f. 3-5.

*Limopsis guineensis, chuni, agulhasensis, anceps, sansibarica, siberutensis, densestriata, tumidula* spp. n., THIELE & JAECKEL Wiss. Erg. Deutsch. Tiefsee-Exped. 21 1 1931 pp. 183-186 pl. i f. 17-20, 22, 24-26.

†*Limopsis retifera, cooki*, spp. n. Oligocene and Miocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 p. 59 figs.—*L. phacomorpha, dejaeri* spp. n. Poudingue and Tuffeau Belgium, VINCENT Mems. Mus. N.H. Belg. 46 pp. 65, 66 pl. iii f. 13, 14.

*Lissarca clara* sp. n., THIELE & JAECKEL Wiss. Erg. Deutsch. Tiefsee-Exped. 21 1 1931 p. 188 pl. i f. 29.

*Melaxinaea litoralis* sp. n., IREDALE Rec. Aust. Mus. 18 4 p. 203.

†*Microcucullaea, pectinata*, Oligocene *crenulifera* Miocene, N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 pp. 56-57 figs.

*Micromytilus* for *crenatulifera* Tate with *robensis, francisensis* spp. n. S. Australia, COTTON Rec. S. Aust. Mus. 4 pp. 335-336 figs.

*Myophoria goldfussi, intermedia*, HELLER 365.

†*Myophoria neuquensis* sp. n. Argentina, GROEBER Com. Mus. Nac. B. Aires 2 p. 92 pl. i.

†*Navicula tutamoensis* sp. n. Oligocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 p. 56 fig.

*Notomytilus robensis* sp. n. S. Australia, COTTON Rec. Aust. Mus. 4 p. 335 figs.

†*Parallelodon egertonianus*, DIAZ-ROMERO 226.—*P. kansasensis* sp. n. Limestone U.S.A., SAYRE Kansas Univ. Bull. 19 p. 108 pl. ix f. 4-7.

†*Pectunculus*, RIEDER 732.—*P. kraussi* sp. n., THIELE & JAECKEL Wiss. Erg. Deutsch. Tiefsee Exped. 21 1 1931 p. 173.

*Philobrya tardiradiata, crebreradiata, celsa*, spp. n. S. Australia, COTTON Rec. S. Aust. Mus. 4 pp. 334-335 figs.—*P. pileata, kerguelensis* spp. n., THIELE & JAECKEL Wiss. Erg. Deutsch. Tiefsee Exped. 21 1 1931 p. 192 pl. ii f. 32, 33.

*Pleurodon maximus* sp. n., THIELE & JAECKEL Wiss. Erg. Deutsch. Tiefsee Exped. 21 1 1931 p. 188 pl. i f. 28.

†*Schizodus obscurus, schlotheimi, planus*, FIEBOLD 288.—*S. truncatus, obscurus schlotheimi planus*, FIEBOLD 289.—*S. subquadratus, elongatus* spp. n., GRABAU Nat. Hist. Central Asia p. 313, 315 pl. xxxi f. 1 a-d, 2 a-c.—*S. trigonalis* sp. n. (Trigonidae) Limestone U.S.A., SAYRE Kansas Univ. Bull. 19 p. 117 pl. xi f. 2, 2a.

*Senectidens dannevigii* gen. et sp. n., IREDALE Rec. Aust. Mus. 18 4 p. 204.

†*Trigonia amudariensis, chivensis, romanovski*, ARCHANGELSKI 25.—*T. longiloba, hokkaidoana naumanni, neumayri, sagawai, toyamai*, KOBAYASHI 460.—*T. hauchecornei*, K. RICHTER 731.—*T. crenulata* Lk., STEPHANOFF 819.—*T. pustulosa* nom. n. for *T. pocilliformis* (pars) Yehara Cretaceous Japan, NAGAO J. Fac. Sci. Hokkaido (4) 1 1930 p. 17 pl. iii f. 9-12.—*T. catantilensis, signata* Agas. *keideli, literata* Young & Bird *keideli, transitoria* Steinmann *t. curacoensis, t. quintucoensis, t. vacaensis, groeberi, picunensis, agrioensis, coihui-coensis* spp. et vars. n. Jurassic and Cretaceous Argentina, WEAVER Mem. Univ. Washington 1 1931 pp. 233-268 pls. xx-xxviii.

*Tucetona* gen. n. type *Pectunculus flabellatus* T. Woods, IREDALE Rec. Aust. Mus. 18 4 p. 202.

*Veletuceta* gen. n. type *Glycymeris flammeus* Roe, *V. fossa, thackwayi* spp. n., IREDALE Rec. Aust. Mus. 18 4 p. 203.

*Versipella* gen. n. type *V. soboles* sp. n., IREDALE Rec. Aust. Mus. 18 4 p. 203.

## MYTILACEA.

†*Anthracomya stobbsi*, *warei*, *wrighti*, *phillipsi*, *calcifera*, *pringlei*, spp. n. Carboniferous England, DIX & TRUEMAN Quart. J. Geol. Soc. London **87** 2 1931 pp. 180–211 pl. xvii.—*A. modiolaris*, *williamsoni*, *pulchra*, *wardi*, PRUVOST **693**.—*A. smolaninovskiensis*, *ovata*, *sinuata*, *sagittata*, ? *indistincta*, *parallela*, *attenuata*, *pruvosti*, *verneuili*, *jacoblewi*, *jaworskii*, spp. n. Carboniferous Donetz Basin, TCHERNYSHEV Trans. Geol. Prosp. Serv. U.S.S.R. **76** pp. 39–46, 95–102 figs.—*A. dolobrata* *modiolaris*, *williamsoni*, *carinata*, WEHRLI **936**.—*A. hindi*, *richfordi*, spp. n. Coal measures Lancs., WRIGHT Mem. Manchr. L.P. Soc. **74** pp. 44, 45 pl. i.—*A. modiolaris*, *insignis*, *curtata*, *richfordi*, *fisheri*, *pulchra*, *cymbula*, *hindi*, *phillipsi*, *tenuis*, W. B. WRIGHT **967**.

†*Anthraconauta* gen. n. (= *Anthracomya* Auctt. pro parte) genotype *A. phillipsi* Williams [Williamson?] Carboniferous Belgium, PRUVOST Mem. Mus. N.H. Belg. **44** 1930 p. 247.

†*Arcomytilus pamiricus* sp. n. Jurassic Pamir, PÖELINEV Trans. Geol. Prosp. Service U.S.S.R. **60** p. 15 pl. i ff. 5, 6.

*Austropteria saltata* gen. et sp. n., IREDALE Rec. Aust. Mus. **18** 4 p. 205.

†*Avicula aguilerae* sp. n. Marl Mexico, BOSE Bull. Univ. Texas **1856** 1918 p. 227 pl. xx ff. 1–2, 11–12.

†*Aviculidae*, COHEN **173**.

†*Aviculomonotis* subgen. n. of *Pseudomonotis* [type] *P. (A.) mongoliensis* sp. n., GRABAU Nat. Hist. Central Asia p. 322 pl. xxxi f. 6 a–c, 7, 9 a–c.

*Crenella canariensis* sp. n. Canaries, ODHNER Arch. f. Zool. **23** A 14 p. 6 figs.—*C. minuta* sp. n., THIELE & JAECKEL Wiss. Erg. Deutsch Tiefsee Exped. **21** 1 1931 O. 171.

†*Crenella cymbiola* sp. n. Eocene Wemmel fig., VINCENT Bull. Mus. H.N. Belg. **6** 17 1930 p. 7 fig.

†*Endocostea* with *E. typica cycloidea*, *t. adversa* vars. n. Untersinon Europe, RIEDER Jahrb. preuss. Geol. **51** p. 665 pl. lxxvi f. 2 pl. lxxv f. 5.

†*Eumorphotis iosephi* sp. n. Permian Trentino, LEONARDI Studi Trentini **1** 3 1930 p. 192 fig.

†*Euphenax* gen. n. with *jamaicensis* Trechmann genotype Tythyan Eocene fig., COX P.M.S. **19** p. 177 pls. xx, xxi.

*Exogyra cancellata*, THOMAS & RICE **862**.

†*Exogyra columba* Lk. f., STEPHANOFF **819**.

*Ezospirna concava* sp. n. S. Australia, COTTON Rec. S. Aust. Mus. **4** p. 340 fig.

†*Gervillia leufuensis* sp. n. Jurassic Argentina, WEAVER Mem. Univ. Washington **1** 1931 p. 199 pl. xv f. 60.

†*Gryphea*, SCHERZER **763**.

*Hochstetteria decapitata*, *pacifica*, spp. n., THIELE & JAECKEL Wiss. Erg. Deutsch Tiefsee Exped. **21** 1 1931 p. 189 pl. i, ii f. 30, 31.

†*Inoceramus labiatus*, ARCHANGELSKI **25**.—*I. cuvieri*, COX **195**.—*I.* (fossil pearls), HAAS **349**.—*I. concentricus*, *stillei*, *andersoni*, *patootensis*, *regularis*, *impressus* figs., HEINZ **362**.—*I. labiatus* p. 25, HEINZ **363**.—*I. (Actinoceramus) fasciatus*, HEINZ **364**.—*I. dubius*, KIEFER **444**.—*I. involutus*, KLINGHARDT **454**.—*I. regularis* Orb. f., LOMBARD **518**.—*I. regularis*, *balticus*, *lingua*, *salisburgensis*, *lamarcki cuvieri*, *undulaticus*, *digitatus*, *cycloides* f. STEPHANOFF **819**.—*I. gierichi ernsti* sp. n. p. 73, *stillei* p. 72 spp. n. p. 75, *undulaticus* *micraeli* var. n. p. 76, HERBST Jahresber. Nied. geol. Hannover **21** 1928 Taf. ii f. 1.—*I.* with *I. cycloides quadrata* var. n. p. 662 pl. lxxiv f. 4, RIEDER Jahrb. preuss. Geol. L.A. *glatziae*, *cordiformis*, *patootensis lingua*, *pacti*, *cardissoides pinniformis*, figd., RIEDER Jahrb. preuss. geol.—*I. curacoensis* sp. n. Jurassic Argentina, WEAVER Mem. Univ. Washington **1** 1931 p. 213 pl. xvi f. 71.

†*Leiopteria serotina* sp. n. Carboniferous Afghanistan, REED Palaeont. Ind. Calcutta **19** p. 35 pl. iv f. 14.

*Lithodomus avitensis*, KÜHNELT **472**.

*Lithophaga teres*, COX **198**.

†*Lithophaga subelliptica* sp. n. Limestone U.S.A., SAYRE Kansas Univ. Bull. **19** p. 123.

†*Lithophagus* [*Lithophaga*] (*Botula*) *brabanticus* sp. n. Eocene Wemmel figs., VINCENT Bull. Mus. H.N. Belg. **6** 17 1930 p. 2.

*Malleus novelesianus* sp. n., IREDALE  
Rec. Aust. Mus. 18 4 p. 205.

*Margaritifera maxima*, *margaritifera*,  
TALAVERA & FAUSTINO 844.—*M. martin-  
tensis*, TANAKA 848.

*Meleagrina*, BOUTAN 125.—*M. mar-  
garitifera*, MARTIN 546.—*M. martensi*  
with pearl, REGNIER 719.

*Modiola pseudocapensis* sp. n. S.  
Africa, LAMY Bull. Mus. Hist. nat. (2)  
3-4 1931 p. 305.

†*Modiola lata*, *macadami*, GARWOOD  
304.—*M. balongensis* sp. n. Eocene  
Dutch E. Indies, MARTIN Wetens.  
Meded. Mijnb. Weltevreden. 18 1931  
p. 45 figs.—*Modiola* sp. fig., REED 716.  
—*M. subhannoverana* sp. n. Jurassic  
Caucasus, PÔELINCEV Trans. Geol.  
Prospect. Ser. U.S.S.R. 91 1931 75,  
161 fig.—*M. hannonica* sp. n. Poudingue  
Belgium, VINCENT Mem. Mus. N.H.  
Belg. 46 p. 74 pl. iv f. 1.

†*Modiolaria*, VINCENT 909.

*Modiolus*, C. W. JOHNSON 419.

†*Modiolus anatinus*, COX 195.—*M.  
daviesi* sp. n. Middle Laki N.W. Frontier  
Province, COX 57 1 p. 61 pl. iii ff. 12,  
13 a-b.—*M. altijugatus* sp. n. Miocene  
N.Z., MARWICK Palaeont. Bull. N.Z. 13  
1931 p. 66 fig.—*M. mollensis* sp. n.  
Jurassic Argentina, WEAVER Mem.  
Univ. Washington 1 1931 p. 300 pl. xxxiv  
f. 192.

†*Myalina* sp. fig., REED 716.—*M.  
falcata* sp. n., GRABAU Nat. Hist.  
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*Myrina longissima* sp. n., THIELE &  
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†*Mytilidae*, WENZ 469.

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†*Mytilus edulis*, KLÄHN 451.—*M.  
minutus*, SCHERZER 763.—*M. inezensis*,  
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*Pinctada*, GALTISOFF 301.—*P. galt-  
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*matthewi*, *furcopicatus* spp. n., GRABAU  
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sp. n. Limestone U.S.A., SAYRE Kansas  
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†*Pterinea* ? *subasperula* sp. n. Ordo-  
vician Korea, KOBAYASHI Bull. Geol.  
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†*Pterinopecten bamianus* sp. n. Car-  
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†*Aviculopecten* (*Deltopecten*) *subclathratus multicosatus* "nom. nov." [var. n.], G. FREDERICKS Bull. Acad. Leningrad 1931 2 p. 222 pl. iv f. 47.—*A. carboniferus* fig., HERITSCH 374.—*A. khinganensis* sp. n. Manchuria, KOBAYASHI Japan J. Geol. Geog. Tokyo 8 4 p. 241 pl. xxiv f. 1, 2.—*A. pruvosti* sp. n. Carboniferous France, LEBEDEV Bull. Acad. Sci. Kieff 4 1929 p. 53 fig.

†*Camptonectes lens, laminatus, rigidus*, ARKELL 22.—*C. lens*, STAESCHE 813.

*Chlamys septemradiatus sabclavata*, PATRINI 632.

†*Chlamys viminea, C. (Camptochlamys) obscura, retifera, C. (Aequipecten) fibrosa, vagans*, ARKELL 22.—*C. (Radulopecten) hemicostata, inaequicostata*, ARKELL 22.—*C. (Radulopecten) inaequicostata* fig., ARKELL 23.—*C. wynnei* sp. n. Nummulite Shale N.-W. Punjab, Cox Tr. R.S. Edin. 57 1 p. 66.—*C. squamata scabrellus, lessepsii, isthmica farsanensis*, COX 198.—*C. with C. (Aequipecten) superfibrosa* sp. n. Corallian Dorset, ARKELL Mon. Palaeont. Soc. London 23 3 1931 p. 114 fig.—*C. milvus, nattheimensis*, STAESCHE 813.—*C. (Phialopecten) tolaensis* sp. n. Miocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 p. 62 fig.—*C. gerassimovi* sp. n. Jurassic Caucasus, POELINCEV Trans. Geol. Prospect. Ser. U.S.S.R. 91 1931 pp. 41, 159 fig.

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†*Entolium (Syncyclonema) rhyphus*, POELINCEV 638.

*Hinnites megadesma* sp. n. Medit., G. COEN Atti. Inst. Veneto 90 pp. 155-158 pl. iv.

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*Pecten*, DOUVILLÉ 237.—*P. maximus*, GRAHAM 326.—*P. MOORE* 574.—*P. grandis*, NORTON, A. H. 495.—*P. varius* fig., LAMY 499.—*P. opercularis, tigrinus, septemradiatus*, LÖNNBERG 519.—*P.*

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†*Pecten (Neithea) dutemplei*, COX 195.—*P. beaveri*? Gault India, COX 199.—*P. (Velopecten) albertii*, HELLER 365.—*P. aequivalvis, priscus*, PAVLOVITCH 636.—*P. tokyoensis*, SAKAKI 756.—*P. nagnumana* figs. pl. x, W. D. SMITH 795.—*P. lohbergerensis* STAESCHE 813.—*P. (Plagiocentrum) andersoni clemonensis* subsp. n. Miocene U.S.A., ETHERINGTON Univ. Calif. Pub. Geol. 20 5 72 f.—*P. fawjasi, septemplicatus*, HANTZSCHEB Cbl. Min. Geol. Paläont. Stuttgart 8 1931 p. 497.—*P. (Chlamys) portoricensis* v. *hubbardi* nom. n. for *P. pogrands* Hubbard; *P. octoplicoides* nom. n. for *P. octoplicatus* Stanton; *P. crasscardo nomlandi* nom. n. for *P. crasscardo bifurcatus* Nomland; HERTLEIN J. Paleont. Sharon. Mass. 5 4 1931 pp. 367-369.—*P. (Velopecten) susukii* sp. n. Cretaceous Japan, KOBAYASHI Japan. J. Geol. Geog. Tokyo 8 4 p. 258 pl. xxv f. 16-18.—*P. filitextus* p. 250, *fililexus* p. 255 sp. n. Miocene Panama, *P. latiauritus splendens, indentus* vars. n. p. 256, LI Bull. geol. Soc. China 9 3 pl. ii f. 10, 12, 13.—*P. pertextus densiradiatus* var. n. Jurassic Spitzbergen, SOKOLOV & BODYLEVSKY Skr. Svalbard Isk. Oslo 35 p. 54 pl. iii.—*P. (Aequipecten) arachnoideus* sp. n. Jurassic Spitzbergen, SOKOLOV & BODYLEVSKY Skr. Svalbard Isk. Oslo 35 p. 61 pl. iv.—*P. (Chlamys) gilbertharrii, kathrinepalmerae, P. ernestsmithi* spp. n. Tertiary U.S.A., TUCKER Proc. Indiana Acad. Sci. 40 pp. 243-245 "pl. i."—*P. sosneadoensis, (Variamussium) personatus* Zieten coloradoensis, concentricus Koch & Dunker, malarquensis, vacaensis spp. et vars. n. Jurassic Argentina, WEAVER Mem. Univ. Washington 1 1931 pp. 272-277 pl. xxviii.



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†*Limatula gerassimovi* sp. n. Jurassic Caucasus, PÉLINCEV Trans. Geol. Prospect. Ser. U.S.S.R. 91 1931 30, 159 figs.

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†*Notolimea broccha* sp. n. Oligocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 p. 65 figs.

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†*Astarte aliena*, COX 195.—A. *brumpti* sp. n. Jurassic (Africa) Tagfidadaedi (HARRAR), BASSE Mem. Soc. géol. Fr. Paléont. N.S. 6 p. 111 pl. iv ff. 5 a-c.—A. *dancalensis* sp. n. Cretaceous Marajum, DIAZ-ROMERO Palaeontogr. ital. Pisa 31 p. 44 figs.—A. *elliptica* var. *depressa*, *montagui*, *borealis*, ELTON & BADEN-POWELL 253.—A. *tunstallensis*, FREBOLD 289.—A. *pontica* sp. n. Jurassic Caucasus, PÉLINCEV Trans. Geol. Prospect. Ser. U.S.S.R. 91 1931 pp. 89, 162 figs.

*Azinus flexuosus*, LÖNNBERG 519.—A. *flexuosus*, MOORE 572.

*Batissa violacea paucicostulata* forma n. Sumatra, OOSTINGH Arch. f. Moll. 63 p. 230 f.

*Benthocardiella striatula* sp. n. 10 m. N. of Enderby Id., 85 fms., POWELL Rec. Canterbury (N.Z.) Mus. 3 p. 371 fig. 1.—*B. obliquata*, *orbicula*, *hamatadens*, spp. n. New Zealand, POWELL Trans. Proc. N.Z. Inst. 61 3-4 1930 pp. 538-539 text-figs.

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†*Cardita* sp. n. ? W. S. ADKINS 4 p. 157.—*C. canaliculata*, COX 198.—*C. hanguensis* sp. n. Tertiary India, COX Mem. Geol. Surv. India (N.S.) 15 p. 206 pl. xxii ff. 5, 8 a-d.—*C. sindensis* nom. n. for *C. obliqua* Archiac & Haime non Pusch Middle Khirthar, Baluchistan, COX Tr. R.S. Edin. 57 1 p. 69.—*C. (Carditamera) tarniarniensis* sp. n. Tertiary S. Florida, MANSFIELD Pr. U.S. N. Mus. 79 p. 9 pl. iii f. 1-3.—*C. austriaca*, SCHERZER 763.

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†*Codakia (Jagonia) peruviana* sp. n. Oligocene Peru, OLSSON Bull. Amer. Paleont. Ithaca 17 63 p. 51, pl. v ff. 3-6.

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†*Congerina böckhi* sp. n. Hungary, W. WENZ Archiv f. Moll. 63 3 p. 117 pl. x, f. 1 a-c.

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†*Cuna tuta* sp. n. Oligocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 p. 67 figs.

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†*Cyrena pilgrimi* sp. n. Laki Baluchistan, COX Tr. R.S. Edin. 57 1 p. 79 pl. iv ff. 9 a, b.—*C. falconensis* sp. n. Miocene Venezuela, H. K. HODSON Bull. Amer. Paleont. 16 59 p. 8 figd.—*C. (Polymesoda) bravoensis*, *trigalensis*, spp. n. Oligocene Peru, OLSSON Bull. Amer. Paleont. Ithaca 17 63 pp. 45, 46 pl. vii.

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*Cyrenoida panamensis* sp. n. Panama, PILSBRY & ZETEK Nautilus 45 p. 69 pl. iii f. 4.

*Devonia*, OHSHIMA 604.

*Diplodon*, HAAS 352.—*D. (Cyclomya)*, HAAS 352.—*D. lutulentus*, PERCIVAL 645.

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Dreisseniidae, GERMAIN 313.

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†*Eriphyla latoensis*, *agrivensis*, *argentina* Burckhardt *piculeufuensis*, Lower Cretaceous Argentina, WEAVER Mem. Univ. Washington 1 1931 pp. 334–336, pl. xi ff. 252–256.

Etheriidae, PRASHAD 688.

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(N-3346 r) Q

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†*Kellia inchoata*, *abduplex* spp. n. Oligocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 pp. 71–72 figs.

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*Lamellidens*, BLOOMER & WINCKWORTH 100.—*L. indraggiensis*, sp. n. Burma, PRASHAD Rec. Ind. Mus. 1931 p. 253 fig. pl. viii f. 9, 10.—*L. proctori*, sp. n. Burma, PRASHAD, Rec. Geol. Sur. India 63 p. 430 pl. xix f. 4–7.—*L. marginalis*, RUBB 752.

*Lampsilis siliquioidea pepinensis*, *anodontoides* figs., T. CHAMBERLAIN 154.—*Lampsilis*, JONES 423.—*L. luteolus*, RAWSON 712.

*Leila esula*, *blainvilleana*, HAAS 353.

*Lepton puncticulatum* sp. n., THIELE & JAECKEL Wiss. Erg. Deutsch. Tiefsee-Exped. 21 1 1931 p. 223 pl. iv f. 96.

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†*Lucina somalica* sp. n. Jurassic (Africa) Tagfidadaedi, BASSE Mem. Soc. géol. Fr. Paléont. N.S. 6 p. 111 pl. iv ff. 6 a–c.—*L. (Loripinus) kohatica* p. 74 pl. iv ff. 11 a, b, (*Pseudomiltha*) *undata* p. 77 pl. iv ff. 6 a, b, c, Cox Tr. R.S. Edin. 57 1.—*L. interrogationis* sp. n. [n. n.], HAWELKA p. 32 360.—*L. inca*, *lomitenis*, spp. n. Oligocene Peru, OLSSON Bull. Amer. Paleont. Ithaca 17 63 pp. 47, 48 pl. v.—*L. corbisoides* Orb. *latoensis*, *leufuensis* var. et sp. n. Lower Cretaceous, WEAVER Mem. Univ. Washington 1 1931 pp. 351–352 pls. xxxviii, xxxix.

†Lucinidae, COHEN 173.

*Margaritana margaritifera*, MARTIN 546; SPÄRCK 805.

*Margaritifera margaritifera* shell structure, HAAS 348.

*Marshalliella* gen. n. Unionidae type  
*Plagiodon balzani* Ihering, HAAS  
*Senckenbergiana* 13 1 p. 50 fig.

*Monocondylaea costulata*, MARSHALL  
544.—M., HAAS 352.

*Montacuta salamensis* sp. n., THIELE  
& JAECKEL Wiss. Erg. Deutsch Tiefsee-  
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†*Milthoidea* subgen. n. of *Miltha* type  
*Miltha neozelanica* Marshall & Murdock,  
MARWICK Palaeont. Bull. N.Z. 13  
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†*Milthona* gen. n. of Lucinidae type  
*M. glomerata* sp. n. Oligocene N.Z.,  
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†*Myrtaea cookei* sp. n. Oligocene  
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†*Mytilopsis trigalensis* sp. n. Oligo-  
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†*Naiadites modiolaris, carinata, quad-*  
*rata*, PRUVOST 693.

†*Najadites excavata* sp. n. Carboni-  
ferous Donetz Basin, TCHERNYSHEV  
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*Pachykellya minima* sp. n. 10 m. N.  
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fig.

*Parreyssia choprae, olivacea, spp. n.,*  
*P. burmanus myrkyinae var. n.* Burma,  
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with *mongoliensis, spatulus spp. n.*  
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*Phacoides (Luciniscia) liana* sp. n.  
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(*Parvilucina*) *congoensis, P. capensis,*  
*aequalis, spp. n.,* THIELE & JAECKEL  
Wiss. Erg. Deutsch Tiefsee-Exped. 21  
1 1931 pp. 220-221 pl. iv.

†*Phacoides (Lucinoma) zapotalensis*  
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*andersoni, nonurensis spp. n.* Eocene

Peru, OLSSON Bull. Amer. Paleont. 17  
62 pp. 23-25 pl. ii ff. 5-9, 12.—*P.*  
(*Cavilucina*) *duplex sp. n. P. pronatus*  
*spp. n.* Poudingue Belgium, VINCENT  
Mems. Mus. N.H. Belg. 46 pp. 92, 93  
pl. v f. 5, 6.—*P. (Miltha?) passecequi,*  
*ciplyensis sp. n.* Poudingue Belgium,  
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*Physunio*, PRASHAD 691.

*Pisidium*, MIYADI 565; MOZLEY 579.  
—*P. cinereum* Ald. fig., ODHNER 599.—  
*P. adamsi, compressum, pauperculum,*  
*scutellatum, variabile versiculare, walkeri,*  
RAWSON 712.—*P. fossarinum, ovatum*  
f., SELIGO 785.—*P. javanum sp. n.* West  
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†*Pisidium*, F. C. BAKER 42.

*Pleurobema aldrichianum* sp. n. Ten-  
nessee Goodrich Occ. Pp. Mus. Z. Univ.  
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†*Pleurophopsis peruviana, lithopha-*  
*goides, spp. n.* Oligocene Peru, OLSSON  
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†*Praeconia pontica, nuculaeformis,*  
*spp. n. P. remesi nom. mut.* for *Astarte*  
*tetragona* Remes Jurassic Caucasus,  
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*Prisodon*, HAAS 352.

†*Psilunio tuberosus* sp. n. Pliocene  
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†*Pteromyrtea cristata* sp. n. Oligocene  
N.Z., MARWICK Palaeont. Bull. N.Z. 13  
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idae) Upper Pliocene N.Z., POWELL  
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*Quadrula undulata*, ISELY 403.

†*Rhombunio ellipticus, ventricosus,*  
*spinifer, spp. n.* Pliocene China, ODHNER  
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*Rochefortia agulhasensis* sp. n., THIELE  
& JAECKEL Wiss. Erg. Deutsch Tiefsee-  
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*Ruganodontites* subgen. n. of *Ano-*  
*dontites* type *A. colombiensis* Marshall,  
W. B. MARSHALL Nautilus 45 1 p. 16.



*Sphaerium crassum*, *exmarginatum* *sulcatum*, *stamineum*, RAWSON 712.—*S. striatinum*, F. H. WOODS 963.—*S. WORTHINGTON* 965.—*S. javanum* sp. n. Central Java, JUTTING Treubia Buitenzorg 13 1 1931 pp. 13, 14, figs.

†*Sphaerium*, F. C. BAKER 42.

Sphaeriidae, F. C. BAKER & CAHN 43; GERMAIN 313.

†Sphaeriidae, WENZ 469.

†*Spissatella luteophila* sp. n. Oligocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 p. 67 fig.

*Sulcastrum* type *Sphaerium sulcatum* (Lam.), H. A. PILSBRY 663.

†*Talabrica senecta*, *nummaria* spp. n. (Crassatellitidae) Pliocene N.Z., POWELL Rec. Auckland Inst. Mus. 1 p. 109 f. 23, 24; 19, 20.

*Tamsiella* gen. n. type *Monocondylaea tamsiana* Dkr., HAAS Senckenbergiana Frankfurt 13 2 p. 87 f. 33, 34 a, b.

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†*Trapezium daviesi* sp. n. Tertiary India, COX Mem. Geol. Surv. India (N.S.) 15 p. 209 pl. xxii ff. 1 a, b; 6 a, b.

*Tritogonia verrucosa*, T. CHAMBERLAIN 154.—*T. tuberculata*, D. T. JONES 423.

*Unio pictorum*, BUCHNER 140 p. 141.—*U. popei*, T. CHAMBERLAIN 154.—*U.*, HAAS 348.—*U. complanatus*, RAWSON 712.—*U. danae* fig., WARREN 930.—*U. introrugatus* sp. n. Uganda, CONNOLLY A.M. Nat. H. (10) 8 p. 320 pl. xii f. 6–9.

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*Unionicola crassipes*, MIYADI 565.

Unionidae, F. C. BAKER & CAHN 43; CONNOLLY 176; GERMAIN 313; KURODA 479; TEXAS, STRECKER 828.

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*Varatoga* gen. n. type *Solecardia cryptozoica* Hedley, IREDALE Rec. Aust. Mus. 18 4 p. 206.

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*Vesicomya chuni*, *valdiviae*, *guineensis*, *longa*, *striata*, *sumatrana rotunda*, spp. n., THIELE & JAECKEL Wiss. Erg. Deutsch Tiefsee-Exped. 21 1 1931 p. 228 pl. iv.

†*Vesicomya tschudi*, *ramondi*, spp. n. Oligocene Peru, OLSSON Bull. Amer. Paleont. Ithaca 17 63 pp. 54, 55 pl. iv.

†*Virmysella hounselli* sp. n. (Kellyidae) Upper Pliocene N.Z., POWELL Rec. Auckland Inst. Mus. 1 p. 111 f. 13, 14.

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†*Allomactra* nom. n. genotype *Mactra grateloupi* Desh., TOMLIN P.M.S. 19 175.

*Apolymetis papyracea*, COX 198.

*Cumingia* (action of ultra violet rays), PASTEELS 630.—*Cumingia*, TYLER 893.

DONAX, TOMLIN 880.—*D. (Latona) szemiani* sp. n. Sumatra, OOSTINGH Arch. f. Moll. 63 p. 245 f.—*D. (Capsella) longissimus* sp. n., THIELE & JAECKEL Wiss. Erg. Deutsch Tiefsee-Exped. 21 I 1931 p. 240 pl. iv f. 116.

†*Donax rogersi*, REUNING 730.—*D. buchiracoana*, *palmasensis*, *wiednmayeri*, *v. falconensis* spp. et var. n. Miocene Venezuela, H. K. HODSON Bull. Amer. Paleont. 16 59 p. 18 figd.—*D. (Paradonax) petersoni* sp. n. Oligocene Peru, OLSSON Bull. Amer. Paleont. Ithaca 17 63 p. 66 pl. ix ff. 6, 7.

*Eastonia capillacea*, MAKIYAMA 535.

†*Ervilia podolica*, *trigonula*, KAT-SCHARAWA 436.

†*Eurytellina solitaria* sp. n. Pliocene N.Z., POWELL Rec. Auck. Inst. Mus. 1 p. 95 f. 40.

†*Iphigenia olssoni* sp. n. Miocene Venezuela, H. K. HODSON Bull. Amer. Paleont. 16 59 p. 19 figd.

†*Labiosa undulata mirandana* subsp. n. Oligocene Venezuela, H. K. HODSON Bull. Amer. Paleont. 16 59 p. 22 figd.

*Macoma baltica*, STEPHEN 820.—*M. planiuscula* sp. n. type Recent also Miocene, GRANT & GALE Mems. S. Diego Soc. N.H. 1 pp. 12, 372 pl. xiv ff. 11 a, b, pl. xx ff. 8 a, b.

†*Macoma (Psammacoma) democraciana falconensis* spp. n. *gatumensis* Miocene Venezuela, H. K. HODSON Bull. Amer. Paleont. 16 59 pp. 15–16 figd.—*M. meroensis*, *lissoni* spp. n. Oligocene Peru, OLSSON Bull. Amer. Paleont. Ithaca 17 63 p. 63 pl. ix.—*M. (Rexithaerus) indentata flagleri* subsp. n. Miocene U.S.A., ETHERINGTON Univ. Calif. Pub. Geol. 20 5 85 f.

*Macra corallina* fig., LAMY 498.—*M. solida*, LÜDERS & TRUSHEIM 527.

†*Macra californica maracaibensis* subsp. n., *M. (Macrotoma) quirosana* sp. n. Miocene and Oligocene Venezuela, H. K. HODSON Bull. Amer. Paleont. 16 59 p. 20 figd.—*M. orthomorpha* sp. n. Pliocene California, GRANT & GALE Mems. S. Diego Soc. N.H. 1 pp. 12, 391 pl. xxiii ff. 2 a–c 6, 7.—*M. (Macrella) tumbezia* sp. n. Oligocene Peru, OLSSON Bull. Amer. Paleont. Ithaca 17 63 p. 66 pl. ix ff. 3, 5.—*M. ? incompta*, *aspenana* spp. n. Wyoming, REESIDE & WEY-

MOUTH Proc. U.S. Nat. Mus. 78 pp. 10, 11 pl. i f. 12, 13, 11.—*Macra*, PAVLOVIC 635.—*M. ? gabiotensis*, WOODRING 962.

†*Maoritellina fragosa, decisa*, spp. n. Oligocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 p. 97.

*Mesodesma*, TOMLIN 880.

†*Metis [Apolymetis] barba wiednmayeri* subsp. n. *falconensis* sp. n. Miocene Venezuela, H. K. HODSON Bull. Amer. Paleont. 16 59 pp. 13, 14 figd.—*Metis [Apolymetis] colombiensis* holotype figd., HODSON 390.

*Quadrans parvitas* sp. n., IREDALE Rec. Aust. Mus. 18 4 p. 207.

*Raeta abercrombiei*, TOMLIN 871.—*R. maxima* sp. n. Panama, LI Bull. Geol. Soc. China 9 3 p. 263 pl. v f. 35.

†*Schizothaerus nuttallii* and vars., J. HENDERSON 370.

†*Schizothaerus nuttallii bighopensis* var. n. Big Hope Is., J. HENDERSON Nautilus 45 1 p. 33.

†*Semele quirosana, zuliana* spp. n. Miocene and Oligocene Venezuela, H. K. HODSON Bull. Amer. Paleont. 16 59 pp. 17 figd.

*Spisula subtruncata*, FISHER 277.

†*Spisula (Oxyperas) steinmanni* sp. n. Oligocene Peru, OLSSON Bull. Amer. Paleont. Ithaca 17 63 p. 67 pl. ix f. 1.

*Syndosmya nitida*, LÖNNBERG 519.—*S. alba, nitida*, H. B. MOORE 572.

†*Syndesmya alba v. scythica*, KAT-SCHARAWA 436.

†*Tancredia ? lincolniiana* sp. n. Cretaceous Wyoming, REESIDE & WEYMOUTH Proc. U.S. Nat. Mus. 78 p. 8 pl. i f. 6.

*Tellina crassa* figd. with mollusk, GUSTAFSON 345.—*Tellina*, MOORE 574.—*T. (Eurytellina) panamanensis* Li fig., PILSBRY 673.—*T. tenuis*, STEPHEN 820.—*T. (Tellinella) aethiopica*, *T. siberutensis*, *valdiviae*, (*Tellinides*) *sclamensis*, spp. n., THIELE & JAECKEL Wiss. Erg. Deutsch Tiefsee-Exped. 21 I 1931 p. 235 pl. iv f. 110.

†*Tellina subdecussata, radiata*, RIEDER 732.—*T. (Angulus) democroci-ana*, (*Moerella*) *paraguanensis*, (*M.*) *quirosana* spp. n. Oligocene and Miocene Venezuela, H. K. HODSON Bull. Amer.

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†*Tellinella ferrari* sp. n. Oligocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 p. 75 fig.

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*Antigona orientalis*, COX 198.

†*Antigona (Artena) inca* sp. n. Oligocene Peru, OLSSON Bull. Amer. Paleont. Ithaca 17 63 p. 61 pl. x ff. 7, 10.

†*Aphrodina? aspenana* sp. n. Cretaceous Wyoming, REESIDE & WEYMOUTH Proc. U.S. Nat. Mus. 78 17 1931 p. 9 pl. i f. 7, 8.

†*Blagroveia* gen. n. Veneridae COX, "Tr. R.S. Edin. 57 1 p. 82."—*B. corrugata* gen. et sp. n. Tethyan Eocene, COX P.M.S. 19 pp. 183 184 pl. xxi.

†*Callista maculata quirosana*, HODSON 390.—*C. (Callista) nusesensis*, KELUM 439.—*C. (Costacallista) mancorensis, vanoasensis* spp. n. Oligocene Peru, OLSSON Bull. Amer. Paleont. Ithaca 17 63 p. 60 pl. viii.

†*Chione posorjensis* sp. n. Oligocene Peru, OLSSON Bull. Amer. Paleont. Ithaca 17 63 p. 62, pl. viii ff. 4, 6.

*Circe salamensis* sp. n., THIELE & JAECKEL Wiss. Erg. Deutsch Tiefsee-Exped. 21 1 1931 p. 233 pl. iv.

†*Dosinia ponderosa* Gray *longidens* var. n. Miocene, GRANT & GALE Mems. S. Diego Soc. N.H. 1 pp. 12, 353.—*D. falconensis* sp. n. Miocene Venezuela, H. K. HODSON Bull. Amer. Paleont. 16 59 p. 11 figd.—*D. (Raina) benereparata, bartrumi* spp. n. Tertiary N.Z., LAWS Trans. Proc. N.Z. Inst. 61 3-4 1930 pp. 547-548 pls. lxxxix, xc.—*D. (Dosinidia) palmerae*, spp. n. Oligocene Peru, OLSSON Bull. Amer. Paleont. Ithaca 17 63 p. 59 pl. vii f. 1.

†*Dosiniopsis corneti, cipliensis* spp. n. Poudingue Belgium, VINCENT Mems. Mus. N.H. Belg. 46 pp. 99, 100 pl. v f. 11, 12.

*Humilaria* subgen. n. of *Venerupis* with type *Venus kennerleyi* Carpenter in Reeve; *Venerupis (H.) perlaminosa* Conrad Pliocene?, GRANT & GALE Mems. S. Diego Soc. N.H. 1 pp. 12, 325.

†*Irus lamellifer* Conrad *prelamellifer* var. n. Miocene California, GRANT & GALE Mems. S. Diego Soc. N.H. 1 pp. 12, 332 pl. xviii f. 7.

†*Katelsysia lunulata* sp. n. Oligocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 p. 80 figs.

*Megapitaria* subgen. n. of *Pitar* Römer 1857, with type *Cytherea aurantiaca* Sow, GRANT & GALE Mems. S. Diego Soc. N.H. 1 pp. 12, 346.

†*Meretrix indica* sp. n. Tertiary India, COX Mems. Geol. Surv. India (N.S.) 15 p. 207 pl. xxii ff. 3 a, b, 7 a, b.—*M. puruensis* sp. n. Eocene Dutch E. Indies, MARTIN Wetens. Meded. Mijnb. Weltevreden. 18 1931 p. 45 figs.—*M. (Cyprimeria) cf. oldhamiana* fig., LOMBARD 518.—*M. quintucoensis* sp. n. Lower Cretaceous Argentina, WEAVER Mem. Univ. Washington 1 1931 p. 357 pl. xxxv ff. 198, 199.

†*Oncophora partschi* VATS. *socialis* f. *gimbeli*, PFANNENSTIEL 653.

†*Pachyderma inezana*, WOODRING 962.

*Paphia litterata*, TAMURA 845.—*P. undulata*, WINCKWORTH 951.—*P. staminea*, A. WOODWARD 964.

†*Paradione (Notocallista) makoensis* sp. n. Oligocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 p. 81.

†*Parastarte martensi* sp. n. Tertiary S. Florida, MANSFIELD Pr. U.S. N. Mus. 79 p. 10 pl. iv f. 4, 6-8.

*Petricola lithophaga*, WISE 957.

†*Pitaria buenaristana buchivacoana, rosea wiedenmayeri* subsp. n. Oligocene Miocene and Recent Venezuela, H. K. HODSON Bull. Amer. Paleont. 16 59 pp. 9, 10 figd.—*P. yasila*, (*Lamelliconcha*) *baldryi*, spp. n. Eocene Peru, OLSSON Bull. Amer. Paleont. 17 62 p. 26 pl. ii f. 11, 1, 2.—*P. (Agriopoma) mancorensis* sp. n. *P. (Pitarella) chiracensis*, *P. (Lamelliconcha) wolfs, ayabaca*, spp. n. Oligocene Peru, OLSSON Bull. Amer. Paleont. Ithaca 17 63 p. 56 pls. vii, viii, ix.

*Psephis* (*Petricola*) *tellimyalis* not *Petricola denticulata*, WILLETT 945.

†*Ptychomya koeneni* Behrendsen *windhausenii*, *k. groeberi*, *k. agriensis*, *k. coihuicoensis*, *k. leufuensis*, *k. vacaensis* vars. n. Lower Cretaceous, WEAVER Mem. Univ. Washington 1 1931 pp. 342-346 pls. xxxvii, xxxviii.

*Tapes* [vide etiam *Paphia*] *rugatus*, *lineatus*, *discrepanis*, BORCEA 112.—*T. decussatus*, GRUVEL 340.—*T.*, KAMANIN & SLODKEVIČ 432.—*T. gregaria*, KLINGER 453.—*T. sumatranus* sp. n., THIELE & JAECKEL Wiss. Erg. Deutsch Tiefsee-Exped. 21 1 1931 p. 235 pl. iv.

†*Tapes* [*Paphia*] *vitaliana*, KATSCHARAWA 436.—*T.*, PAVLOVIC 635.—*T. inezensis*, WOODRING 962.

*Velargilla* gen. n. type *Narano rubiginosa* A. Ad. & Ang., IREDALE Rec. Aust. Mus. 18 4 p. 207.

*Venus ovata*, *gallina*, *fasciata*, LÖNNBERG 519.—*V. (Chione) congoensis*, *valdiviae*, spp. n., THIELE & JAECKEL Wiss. Erg. Deutsch Tiefsee-Exped. 21 1 1921 p. 234 pl. iv.

†*Venus ovata*, *fasciata*, PATRINI 634.—*V. plana* f., STEPHANOFF 819.

*Venerupis* (*Protothaca*) *restorationensis*, FRIZZELL [Naut. 43 1930 p. 120] 293.

### CARDIACEA.

*Cardium paucicostatum*, BORCEA 112.—*C. corbis*, FASTEN 261.—*Cardium*, KAMANIN & SLODKEVIČ 432.—*C. obsoletum*, KLINGER 453.—*C. echinatum* fig., LAMY 498.—*C. aculeatum*, *edule* fig., LAMY 499.—*C. echinatum*, LÖNNBERG 519.—*C. edule*, LÜDERS & TRUSHEIM 527; STEPHEN 820.—*C. (Trachycardium) hornelli*, TOMLIN 873.—*C. edule*, TRUSHEIM 887.—*C. radula* sp. n., THIELE & JAECKEL Wiss. Erg. Deutsch Tiefsee-Exped. 21 1 1931 p. 227 pl. iv f. 99.

†*Cardium edule*, ARCHANGELSKI 25.—*Cardium*, BEEBE 64.—*C. papillosum*, *minimum*, *norvegicum*, *cyprum*, PATRINI 634.—*C. edule*, PRAVOSLAVLEV 692.—*C. proboscideum*, *noeggerathi*, RIEDER 732.—*C. elongatum*, *unicolor*, *donaciformis* figs. pl. ix, W. D. SMITH 795.—*C. cotteri* nom. n. for *C. ambiguum* J. de C. Sowerby non O. G. Costa Laki of Sind, Cox Tr. R.S. Edin. 57 1 p. 82 pl. iii f. 19.—*C. strangi* sp. n. Tertiary

N.Z., LAWS Trans. Proc. N.Z. Inst. 61 3-4 1930 p. 549 pl. xc.—*C. (Trachycardium) evergladeensis* sp. n. Tertiary S. Florida, MANSFIELD Pr. U.S. N. Mus. 79 p. 10 pl. iv f. 1, 3, 9.—*C. junceum* sp. n. Eocene Peru, OLSSON Bull. Amer. Paleont. 17 62 p. 25 pl. ii ff. 4, 10.—*C. montense* sp. n. Poudingue Belgium, VINCENT Mems. Mus. N.H. Belg. 46 p. 102 pl. v f. 15.

*Cardium* [*Cardium*] *parvulum* sp. n. Panama, LI Bull. Geol. Soc. China 9 3 p. 259 pl. iii f. 22.

†*Conocardium uralicum*, HERITSCH 374.—*C. jisuenensis* sp. n., GRABAU Nat. Hist. Central Asia p. 316 pl. xxxi f. 3 a-d.—*C. tschernyschewi* sp. n. Upper Permian Northern Province Russia, LICHAREW Trans. Geol. Prosp. Ser. U.S.S.R. 71 1931 pp. 6, 33.

†*Cypriocardinia* ? *permica* sp. n. Upper Permian Northern Province Russia, LICHAREW Trans. Geol. Prosp. Ser. U.S.S.R. 71 1931 pp. 7, 33.

†*Diversicostata* sec. n. of *Monodacna* type *Monodacna maxima* ("Andrus") sp. n. *Sokolovi*, *schakonensis* spp. n., *m. elongatum* var. n. Pliocene Midi U.R.S.S. WASSOIEVIC & EBERZIN Trav. Mus. Geol. Leningrad 6 1930 pp. 114-116 pl. iii.

*Fragum* (*Afrocardium*) *shepstonense* subg. et sp. n. S.A., TOMLIN Ann. Natal Mus. 6 3 1931 p. 449 pl. xxxiii f. 8.

†*Monodacna donacoides*, *lebedinsevi*, *zlatarskii* spp. n. Pliocene Midi U.R.S.S. WASSOIEVIC & EBERZIN Trav. Mus. Geol. Leningrad 6 1930 pp. 95-110 pl. i-iii.

†*Nemocardium cipliyense* sp. n. Poudingue Belgium, VINCENT Mems. Mus. N.H. Belg. 46 p. 103 pl. vi f. 5.

†*Praecardium laticostatum* sp. n. Kiln shale U.S.A., BURGESS Bull. Mus. Comp. Zool. Harvard 72 1931 p. 198 pl. f. 3.

†*Prosodacna prionopleura*, *p. krestovnikovi*, *p. davilašvilii*, *renngarteni*, spp. n., WASSOIEVIC & EBERZIN Trav. Mus. Geol. Leningrad 8 p. 259.

*Pterocardium*, DOUVILLÉ 237.

*Tridacna elongata*, TAMURA 845.—*Tridacna* (*digestion*), YONGE 972.

### CHAMACEA.

†*Biradiolites*, KLINGHARDT 454.

†*Chama limbula*, COX 198.—*C. ciplyense* sp. n. Poudingue & Tuffeau Belgium, VINCENT Mems. Mus. N.H. Belg. 46 p. 104 pl. v f. 17.—*C. umbrograei* sp. n. Eocene Dutch E. Indies, MARTIN Wetens. Meded. Mijnb. Weltevreden 18 1931 p. 45 figs.

*Chiapasella* gen. n. for *Coralliochama radiolitifformis* Trechmann, MÜLLER-REID An. Inst. Biol. Mexico 2 p. 252.—*C. pauciplicata* sp. n., MÜLLER-REID An. Inst. Biol. Mexico 2 p. 252 fig.

†*Ciplyella* gen. n. for *Chama pulchra* Ram. 1902, VINCENT Mems. Mus. N.H. Belg. 46 p. 111 pl. vi f. 12.

*Diceras*, DOUVILLÉ 237.

†*Durania terlinguae, aguilae huasteca* spp. n. Cretaceous Mexico and Texas, ADKINS Bull. Univ. Texas 3001 1930 pp. 94–96 pls. vi–viii.

†*Eoradiolites quadratus, angustus* sp. n. Cretaceous Texas, ADKINS Bull. Univ. Texas 3001 1930 pp. 80–90.

*Hippurites*, MÜLLER-REID 582.

†*Hippuritidae*, KLINGHARDT 454.

†*Neomonopleura weidenmayeri* gen. et sp. n. Oligocene Trinidad, HODSON & HARRIS Bull. Amer. Paleont. 16 61 p. 3 (135) pls.

†*Praeradiolites*, KLINGHARDT 454.—*P. edwardsensis* sp. n. Cretaceous Texas, ADKINS Bull. Univ. Texas 3001 1930 p. 92 pl. iv ff. 6–8.

†*Radiolites*, KLINGHARDT 454.—*R. hispanicus, retrolatus*, spp. n., ASTRE Bull. Soc. géol. Fr. 29 p. 227.

†*Sauvagesia acutocostata, morgani* spp. n. Cretaceous Mexico and Texas, ADKINS Bull. Univ. Texas 3001 1930 pp. 98–99 pls. vii, viii.

†*Vaccinites praegiganteus*, CIRY 159.

#### MYACEA.

*Amotapus* = "*Raetomya*," SEITZ & RUTSCH 784.

†*Asaphis (Asaphinoides) cantaurana* sp. n. Miocene Venezuela, F. HODSON Bull. Amer. Paleont. 16 60 p. 8 figd.

*Corbula valdiviae, donsesculpta, niasensis* spp. n., THIELE & JAECKEL Wiss. Erg. Deutsch Tiefsee-Exped. 21 1 1931 pp. 241–242 pl. iv.—*C. gibba*, LÖNNBERG 519.

†*Corbula alpina*, SCHERZER 763.—*C. subtrigonalis, perundata, perangula* figs., WARREN 930.—*C. wenoensis, basini-formis littoralis* spp. n. Clay and Mark Texas, ADKINS Bull. Univ. Texas 1856 1918 pp. 127–133, pl. x ff. 1–4, 7–9, 5; pl. ix ff. 7–24.—*C. samanaensis, C. (Bicorbula) praexorata* spp. n. Tertiary India, COX Mems. Geol. Surv. India (N.S.) 15 pp. 211, 212, pl. xxii ff. 14, 15 a–c; 10 a, b, 11 a–c, 12, 13 a–c.—*C. gibbiformis* sp. n. Pliocene California, GRANT & GALE Mems. S. Diego Soc. N.H. 1 pp. 12, 420 pl. xix ff. 4–6.—*C. carizalana, zuliana, C. (Caryocorbula) buenavistana, democraciana, quirosana, urumacoensis, spp. n.* Miocene Venezuela, F. HODSON Bull. Amer. Paleont. 16 59 pp. 22–27 figs.—*C. sitirostris* n. n. p. 249, *altirostris* p. 263, *glypta* spp. n. Miocene Panama, LI Bull. Geol. Soc. China 9 3 pp. 263, 264 pl. v f. 37, 38, 38a.—*C. balongensis, javana* spp. n. Eocene Dutch E. Indies, MARTIN Wetens. Meded. Mijnb. Weltevreden 18 1931 pp. 46, 47 figs.—*C. iburica* sp. n. Neogene Japan, YOKOYAMA J. Fac. Sci. Univ. Tokyo 3 1931 p. 194 pl. xi f. 8.

*Cultellus pellucidus* Monograph, ESCHRICH 257; LÖNNBERG 519.

*Ensis siliqua*, GRAHAM 327.

*Gari tellinella* fig., GUSTAFSON 345.

†*Garum ? corneti* sp. n. Poudingue Belgium, VINCENT Mems. Mus. N.H. Belg. 46 p. 106 pl. vi f. 7.

*Gastrochaena intermedia*, KÜHNELT 472.

†*Glycimeris gurgitis*, RIEDER 732.

†*Goniomya intersectans*, COX 195.

*Mya arenaria*, TRUSHEIM 887.—*M. arenaria, truncata*, LÜDENS & TRUSHEIM 527.—*M. arenaria*, LÖNNBERG 519.

†*Mya arenaria L. profundior* var. n. = *Mya crassa* Grewingk Miocene? GRANT & GALE Mems. S. Diego Soc. N.H. 1 pp. 12, 414.—*M. pseudo-arenaria* nom. n. for *M. truncata* f. *ovata* Jensen 1900 non Donovan 1802 Iceland, H. SCHLESCH Archiv f. Moll. 63 4/5 p. 136 pl. xiii f. 10–12.—*M. (Raetomya) schweinfurthi, truncata, M. (R.) s. falconensis* var. n. Tertiary Venezuela, SEITZ & RUTSCH Eol. geol. helv. 23 2 p. 594 pl. xvi.—*M. truncata*, ELTON & BADEN-POWELL 253.



†*Prothyris striatus* sp. n. Upper Permian Vosogda Russia, LICHAREW Trans. Geol. Prosp. Serv. U.S.S.R. 71 1931 pp. 4, 32 figs.

*Psammobia valdiviae* sp. n., THIELE & JAECKEL Wiss. Erg. Deutsch Tiefsee-Exped. 21 1 1931 p. 239 pl. iv f. 115.

†*Psammocola* (*Amphipsammus*?) *dejaeri* sp. n. Poudingue Belgium, VINCENT Mems. Mus. N.H. Belg. 46 p. 107 pl. vi f. 8.

*Saxicava rugosa*, LÖNNBERG 519.

†*Sanguinolaria tumbezana*, sp. n. Oligocene Peru, OLSSON Bull. Amer. Paleont. Ithaca 17 63 p. 65 pl. iii ff. 1, 4.

*Siliqua patula*, C. F. McLEAN 531; WEYMOUTH, McMILLAN & RICH 943.

†*Siliqua alemannica* sp. n. Miocene Switzerland, PFANNENSTIEL SitzBer. Leidelberg Akad. Wiss 1931 1 p. 13 pl. i.

†*Solecurtus zwierzyckii* sp. n. Eocene Dutch E. Indies, MARTIN Wetens. Meded. Mijnb. Weltevreden 18 1931 p. 45 figs.—*S. neuquensis* sp. n. Lower Cretaceous Argentina, WEAVER Mem. Univ. Washington 1 1931 p. 359 pl. xxxv f. 197.

*Varicorbula* subgen. n. of *Corbula* with type *C. gibba* (Oliv.) "as figd. by B. D. & D.," GRANT & GALE Mus. S. Diego Soc. N.H. 1 pp. 12, 420.

#### ADESMACEA.

*Bankia odhneri* sp. n. Falkland Ids., ROCH Ark. Zool. Stockholm 22 A 13 1931 p. 20 pl. iv f. 10.—*B. fimbriatula* nom. n. for *fimbriata* Jeff. non DeFrance rochi, odhneri spp. n. *campanellata* nom. n. for *T. campanulata* Sow. non Jeff. figs., MOLL & ROCH P.M.S. 19 212-217.—*B. bagidaensis* pl. ii f. 17; *anechoensis* pl. ii f. 18; *kuronunui* pl. ii f. 19; *kingyokuensis* pl. ii f. 21; *segaruensis* pl. ii f. 20 spp. n. "Roch," ROCH & MOLL Mitt. Zool. Staatsinst. & Mus. Hamburg 44 pp. 18-20.—*B. (Bankia) nakazawai* sp. n. Japan, KURONUMA Venus Kyoto 2 6 1931 p. 296 pls. viii, ix.

*Barnea candida* action of ultra violet rays on ova, PASTEELS 630.—*B. candida*, SUSAETA 833.

*Jouannetia checciai* sp. n. Pliocene Marcellina, SORRENTINO Bol. Soc. geol. ital. 50 1 p. 82 pl. ii ff. 4-6.

†*Jouannetia tournoueri*, *semicaudata*, *urensis*, SORRENTINO 800.—*J. (Triomphalia) montensis* sp. n. Tuffeau Belgium, VINCENT Mems. Mus. N.H. Belg. 46 p. 110 pl. vi f. 11.

*Nausitoria orientalis* p. 17 pl. ii f. 15, *N. kamiyai* p. 17 pl. ii f. 16 spp. n. "Roch", ROCH & MOLL Mitt. Zool. Staatsinst. & Mus. Hamburg 44.

*Scobinopholas* "sec. n." nom. nov. for *Scobina* Bayle non Lepeletier, type *Pholas costatus* L., GRANT & GALE Mems. S. Diego Soc. N.H. 1 pp. 12, 431.

*Teredo navalis*, BARTSCH 59; BLUM 101.—*T. norvegica* fig., CUBRILLOVIC 209.—*T. navalis*, DORE & MILLER 234; HAAS 348; variation, R. C. MILLER 561; MOLL 569; WAAGE 916.—*T. (Neoteredo) healdi* sp. n. Venezuela, BARTSCH Proc. U.S. Nat. Mus. 79 8 1931 pp. 1-3 pl. i:—*T. (Lyrodus) hibicola*, *T. (Teredops) tateyamensis*, spp. n. Japan, KURONUMA Venus Kyoto 2 6 1931 p. 295 pls. viii, ix.—*T. spärcki*, *lieberkindi*, *molli*, *dagmarae* spp. n. Philippines and Brazil, ROCH Ark. Zool. Stockholm 22 A 13 1931 pp. 15, 16 pls. ii, iii.—*T. diderichseni* sp. n. *batavana* nom. n. for *batusa* Sow. nom. Spengler *murrayi*, *calmani*, *robsoni*, *pocilliformis* spp. n., MOLL & ROCH P.M.S. 19 201-211 figs.—*T. yatsui* p. 10 pl. ii f. 5 "Moll" *T. lamyi*, *lomensis*, *nodosa*, *dicroa* pp. 10, 11, 14 pl. i f. 6, 9, pl. ii f. 12, 13 "Roch" spp. n., ROCH & MOLL Mitt. Zool. Staatsinst. & Mus. Hamburg 44.—*T. lamyi* p. 10, *gazellae* p. 6 pl. i f. 1; *diderichseni* p. 6 pl. i f. 2; *takanoshimensis* p. 10 pl. i f. 7; *togoensis* p. 11 pl. i f. 10; *sinensis* p. 13 pl. ii f. 11; *hermitensis* p. 14 pl. ii f. 14; spp. n. "Roch"; *petersi* p. 6 pl. i f. 3; "Moll"; *semoni* "Moll" nom. nov. for *T. clava* Martens, ROCH & MOLL Mitt. Zool. Staatsinst. Mus. Hamburg 44.

*Zirfaea pilsbryi* sp. n. Calif. Lowe Nautilus 45 p. 53 pl. iii f. 1, 2.

#### ANATINACEA.

†*Anatina* (*Raëta*) *plicatella* Lk., *longior* var. n. Upper Miocene, GRANT & GALE Mems. S. Diego Soc. N.H. 1 pp. 12, 408, pl. xxiii ff. 1 a-b.

†*Edmondia* sp. fig., REED 716.—*E. sulcata*, HERITSCB 374.—*E. kansanensis* sp. n. Grammysiidae Limestone U.S.A., SAYRE Kansas Univ. Sci. Bull. 19 p. 104 pl. viii f. 5, 5a.

*Euciroa aethiopica*, *crassa*, *spinosa*, (*Acreuciroa*) *rostrata*, THIELE & JAECKEL Wiss. Erg. Deutsch Tiefsee-Exped. 21 1 1931 pp. 247-249 pl. v.

†*Goniomya baysunensis*, PÖELINCEV 638.—*G. arctica* sp. n. Jurassic Spitzbergen, SOKOLOV & BODYLEVSKY Skr. Svalbard Ish. Oslo 35 p. 76 pl. iv f. 8.

*Lyonsia norvegica*, LÖNNBERG 519.—*L. elegans* sp. n., THIELE & JAECKEL Wiss. Erg. Deutsch Tiefsee-Exped. 21 1 1931 p. 244 pl. v f. 122.

*Lyonsiella agulhasensis* sp. n., THIELE & JAECKEL Wiss. Erg. Deutsch Tiefsee-Exped. 21 1 1931 p. 250 pl. v f. 133.

*Myadora iredalei*, *pervalida* spp. n. *M. royana delicata* subsp. n., COTTON Rec. S. Aust. Mus. 4 p. 343-344 figs.—*M. valdiviae* sp. n., THIELE & JAECKEL Wiss. Erg. Deutsch Tiefsee-Exped. 21 1 1931 p. 243 pl. iv f. 121.

†*Myodora kaiwiensis* sp. n. Upper Pliocene N.Z., POWELL Rec. Auckland Inst. Mus. 1 p. 111 f. 37, 38.

*Panacea sumatrana* sp. n., THIELE & JAECKEL Wiss. Erg. Deutsch Tiefsee-Exped. 21 1 1931 p. 244 pl. v f. 123.

†*Periploma venezuelana wiedenmayeri* sp. et subsp. n. Miocene Venezuela, H. K. HODSON Bull. Amer. Paleont. 16 59 p. 7 figd.—*P. macphersoni* sp. n. Oligocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 p. 83 figs.

Periplomatidae, LAMY 503.

†*Periplomya ? aspenana* sp. n. Cretaceous Wyoming, REESIDE & WEYMOUTH Proc. U.S. Nat. Mus. 78 p. 7 pl. i f. 1.

†*Pholadomya protei*, BASSE 61.—*P. voltzi*, KIEFER 444.—*P. pedernalis* f., LOMBARD 518.—*P. waitotara* sp. n. Pliocene N.Z., POWELL Rec. Auckland Inst. Mus. 1 p. 96 f. 16.—*P. agrioensis* sp. n. Lower Cretaceous Argentina, WEAVER Mem. Univ. Washington 1 1931 p. 316 pl. xxxvi ff. 205, 206.

†*Pholadomyidae*, COHEN 173.

†*Pleuromyidae*, COHEN 173.

Thraciidae, LAMY 501.

†*Thracia ? wyomingensis* sp. n. Cretaceous Wyoming, REESIDE & WEYMOUTH Proc. U.S. Nat. Mus. 78 17 1931 p. 8 pl. i f. 10.

*Verticordia inornata*, *guineensis*, *tenerima*, *affinis* spp. n., THIELE & JAECKEL Wiss. Erg. Deutsch Tiefsee-Exped. 21 1 1931 pp. 245-247 pl. v.

SEPTIBRANCHIA.

POROMYACEA.

*Cuspidaria erma*, *occidua* spp. n. S. Australia, COTTON Rec. S. Aust. Mus. 4 p. 347 figs.—*C. aequatorialis*, *rara*, *agulhasensis*, *salamensis*, *aethiopica*, *valdiviae*, (*Cardiomya*) *chuni*, *orientalis*, spp. n., THIELE & JAECKEL Wiss. Erg. Deutsch Tiefsee-Exped. pp. 252-257 pl. v.

†*Cuspidaria beneansata*, *C. (Cardiomya) stenhousi* spp. n. Oligocene N.Z., MARWICK Palaeont. Bull. N.Z. 13 1931 pp. 83, 84 figs.

†*Naera* (*Neaera* in Summary) *caucasica* sp. n. Jurassic Caucasus, PÖELINCEV Trans. Geol. Prospect. Ser. U.S.S.R. 91 1931 pp. 111, 163 fig.

*Notomya* gen. n. type *tasmanica* Hedley & May (*Pholadomya*) S. Australia, COTTON Rec. S. Aust. Mus. 4 p. 342.

*Poromya sansibarica*, *orientalis*, *niasensis*, *sumatrana* spp. n., THIELE & JAECKEL Wiss. Erg. Deutsch Tiefsee-Exped. 21 1 1931 pp. 251-252 pl. v.

*Pseudoneaera minor* sp. n., THIELE & JAECKEL Wiss. Erg. Deutsch Tiefsee-Exped. p. 258 pl. v f. 146.

*Questimya granifera* sp. n. S. Australia COTTON Rec. S. Aust. Mus. 4 p. 345 fig.

†*Sanguinolites*, *olseni*, *modiomorphoides* sp. n., GRABAU Nat. Hist. Central Asia pp. 318, 321 pl. xxxi f. 4 a-c, xxxii f. 14.

Cephalopoda.

(a) RECENT.

*Abralia véranyi*, GRIMPE 333.—*A. renschi* sp. n. Sunda-Exped., GRIMPE Zool. Anz. 1931 95 pp. 149-165 figs.

*Amaltheus*, FIEBIGER 287.

*Benthoctopus sibiricus* sp. n. Siberian Arctic, LÖVNING Scient. Res. Norw. N. Polar Exped. "Maud" Bergen 5 11 1930 p. 3 pl. i, ii.

Cephalopoda, METCALF 556.—*C.* (digestion), YONGE 972.

*Chiroteuthis*, ISSEL 404.—*C. veranyi* figd., MINELLI 563.

*Decorisepia jaenschii* sp. n. Robe Australia, COTTON S. Aust. Nat. Adelaide 12 3 p. 41 fig. 5, 6.

*Diaphanoteuthis* genotype *Leptoteuthis diaphana* Verrill nom. n. for *Leptoteuthis* Verrill 1884 non Orbigny 1845, TOMLIN P.M.S. 19 p. 174.

*Doratoopsis*, ISSEL 404.

*Dosidicus gigas*, ODHNER 601.

*Drechselia danae* gen. et sp. n. of Cranchiidae, JOUBIN Ann. Inst. Océan. Paris N.S. 10 7 pp. 197-208.

*Eledone cirrosa*, RENDALL 721.

*Idiosepius pygmaeus hebereri* subsp. n. Sunda Exp., GRIMPE Zool. Anz. 1931 95 pp. 165-174.

*Illex illecebrosa*, CLENCH 160.

*Loligo vulgaris*, R. BOUGERIE 119; BOZLER 130.—*L. pealeii*, CLENCH 160.—*L. vulgaris*, RANZI 704; RANZI 706, 708.—*L. opalescens*, WALFORD 927.

*Melanoteuthis anderseni* sp. n. JOUBIN Ann. Inst. Océan. Paris N.S. 10 7 p. 170 fig. 1.

*Octopus vulgaris* Lk., ODHNER 601; RANZI 708.—*O. vulgaris*, *macropus*, SCHREIBER.—*O. vulgaris*, WEBER 935.

*Octopodoteuthis danae* sp. n., figs., JOUBIN Ann. Inst. Océan. Paris N.S. 10 7 p. 185.

*Sepia officinalis*, ATHANASSOPOULOS 32; BOUGERIE 119; FEYEL & NOUVEL 266.—*S. braggi*, JACKSON 406.—*S. officinalis*, KLEIN 452; (embryo) RANZI 704, 705, 706, 708; SCHREIBER 780; TRUSHEIM 886; WEBER 935.

*Sepiola intermedia*, RANZI 707, 708.

*Sepioteuthis australis* spermatophore figs., VERCO & COTTON 903.

*Sonneratia savini* f., STEPHANOFF 819.

*Spirula spirula*, JOLEAUD 420.

*Taningia danae* gen. et sp. n. figs., JOUBIN Ann. Inst. Océan. Paris N.S. 10 7 p. 181.

*Thelidioteuthis alessandrinii*, ISSEL 405.

## Cephalopoda.

### (b) FOSSIL.

†*Acanthoceras wintoni*, *lonsdalei*, *belense stephensoni* spp. n. and 7 other

n. spp.? Cretaceous Texas, ADKINS Bull. Univ. Texas Austin 2838 1928 pp. 243-247 pls. xxv-xxxi.—*A. worthense* sp. n. Clay Texas, ADKINS Bull. Univ. Texas 1856 1918 p. 93 pl. i ff. 11-13, 15-17, 20-25.—*A. borgesii* sp. n. cenomanian Cretaceous Salinas, DOUVILLÉ Bol. Mus. Lab. Min. Geol. Univ. Lisboa 1 I 1931 p. 32 pl. ii ff. 3 a-b, 4.—*A. confusum* p. 33, HEINZ 363 pl. i a, b.—*A. albertense* sp. n. Cretaceous Alberta, WARREN Trans. Roy. Soc. Can. 4 (3) 1930 p. 21.

†*Acanthoscaphites albertensis* sp. n. Cretaceous Alberta, WARREN Trans. Roy. Soc. Can. 4 (3) 1930 p. 23.

†*Acompsoceras americanum* sp. n. Cretaceous Wyoming, REESIDE & WEYMOUTH Proc. U.S. Nat. Mus. 78 17 1931 p. 118 pl. iii f. 1-4.

†*Actinoceras adnatum*, *altopontense*, *arcanum*, *bellefontense*, *beloitense*, *bigsbii*, *caneyense*, *capitolinum*, *centrale*, *cinctum*, *circularare*, *curdsvillense*, *glencoense*, *glenni*, *jessaminense*, *kentuckiense*, *lenticexpandum*, *libanum*, *lindenense*, *paquettense*, *pohli*, *ruedemanni*, *saffordi*, *tennesseense*, *tenuifilum*, spp. n. E. Central N. America, FOERSTE & TEICKERT J. Sci. Labs. Denison Univ. 25 6 1930 pp. 225-254.

†*Adrianites insignis biassalensis*, *distefanoi minor* vars. n. *gemmellaroii pelassi* "spp. n." [n. n.], TOUMANSKY 882.—*A. insignis* Gemm. *biassatensis*, *distefanoi* Gemm. *minor*, *gemmellaroii*, *A. hanteli* vars. et sp. n. Permo-Carboniferous Beds of the Crimea, TOUMANSKY pp. 58-62, 98-101 figs. 883.

†*Adrianitidae* fam. n., SCHINDEWOLF SitzBer. Geol. LdAnst. 6 p. 199.

†*Agathiceras planus*, *bodraki*, *katschae*, *beschui* spp. n., *anceps kitschiensis*, *sarabansis* "vars. n." [n. n.], TOUMANSKY 882.—*A. planum*, *bodraki*, *katschae*, *beschui*, *anceps* Gemm. *kitschiensis*, *a. sarabansis*, spp. et vars. n. Permo-Carboniferous Beds of the Crimea, TOUMANSKY pp. 66-72 103-106 883.

†*Alligaticeras indicum*, *polymorphum* spp. n. Divesian, Oolite India, SEATH Mems. geol. surv. India N.S. 9 2 pp. 403, 405, 409.

*Amaltheus (Pallopleuroceras) spinatus* (Brug.), SCHINDEWOLF 770.

†*Ammonites* (*Schloenbachia*) *inflatus*,  
RAO 710.—*A. lallieri*, SPATH 807.

†*Anakashmirites* **gen. n.** type *Danubites nivalis* Diener, Eotriassic Greenland, SPATH Medd. Grønland 83 1 p. 35.

†*Anastephanites* **gen. n.** type *Tirolites meridianus* Welter, Eotriassic Greenland, SPATH Medd. Grønland 83 1 p. 83.

†*Ancyloceras paderbornense*, BEUBLEN 90.—*A. bendirei* **sp. n.** Marl Texas, ADKINS Bull. Univ. Texas Austin 1856 1918 p. 70 pl. ii f. 1.

†*Ancyloceratidae* Hyatt 1900 emend., SPATH Palaeont. Ind. Calcutta 9 2 5 1931 p. 655.

†*Anotoceras intermedium* **nom. n.** for *Prospiringites nala* Diener pars. Eotriassic Greenland, SPATH Medd. Grønland 83 1 p. 8.

†*Anthraceras hindi*, DUNCAN 240.—*A. aegiranum* fig., LEBEDER 509.

†*Arcestes* ? *selwyni* **sp. n.** Trias B.C., McLEARN Trans. Roy. Soc. Can. 4 (3) 1930 p. 17.

†*Arietoceras algovianum ignara* **var. n.** *A. schröderi*, *subnodosum*, *rotula*, *almoe-tianum*, *expulsum*, *maugerii*, *accuratum* **spp. n.**, FUSINI Palaeontogr. ital. Pisa 31 pp. 100–107 pls. vi–viii.

†*Armenoceras brevicameratum*, *madi-sonense*, *richardsoni* **spp. n.**, FOERSTE & TEICHERT J. Sci. Labs. Denison Univ. 25 6 1930 pp. 271–273.

†*Arnioceras subgeometricum* **sp. n.** also *A. natrix*, *semicostatus*, *geometri-cum*, *ceratitoides*, *falcaries*, JAWORSKI N. Jahrb. geol. Paläont. Stuttgart 65 1 p. 97 pls. iii, iv.—*A. richardsoni* **sp. n.** Lias Gloucestershire, TRUEMAN Proc. Cotteswold Nat. 23 3 1930 p. 246.

†*Aspidoceras* **n. var. aff. uhlandi** Oppel, fig., COGOLI 172.—*A. acanthi-cum*, *insulanum*, FLORIDIA 279.—*A. longispinum*, PANOW 628.—*A. asym-metricum* **nom. n.** for *Physodoceras* cf. *binodiferum* (Waagen) Spath (pars.), 629, *caroli* 632, *lerense* 633, *subwynnei* 640, **spp. n.** Jurassic Kachh., SPATH Palaeont. Ind. Calcutta 9 2 5 1931 pp. 620–640 pls.—*A. neuquensis* **sp. n.** Jurassic Argentina, WEAVER Mem. Univ. Washington 1 1931 p. 435 pl. lxii ff. 341, 342.

†*Aspidoceratidae*, TRAUTH 884.

†*Aspidoceratinae* sub. fam. Zittel emend., SPATH Palaeont. Ind. Calcutta 9 2 5 1931 p. 617.

†*Asteroceras obtusum*, BOVIER 127.

†*Asteroceras*, SPATH 807.—*A. sparsi-costatum* **sp. n.** Lias, East Indies, WANNER & SAWORSKI N. Jahrb. Geol. Paläont. Stuttgart 66 2 p. 206 pl. xix f. 1 a–e.

†*Astieria curacoensis* **sp. n.** Lower Cretaceous Argentina, WEAVER Mem. Univ. Washington 1 1931 p. 427 pls. xlix–l.

†*Aulasimoceras* *Aspidoceratidae* (*Simoceratinae*) **gen. n.** for *Waagenia auberta* Pervinquière, SPATH Palaeont. Ind. Calcutta 9 2 5 1931 p. 643.

†*Ataxioceras praecox*, *kachhense*, **spp. n.** Sandstone India, SPATH Mem. geol. surv. India N.S. 9 2 pp. 446, 447 figd.

†*Aturia* distribution, structure, with *dickersoni* **sp. n.** Cretaceous p. 451 pl. lxvi f. 4, *A. angustata* Conrad *grandior*, *a. alaskensis* **vars. n.** Oligocene pp. 462–463 pls. lxxiii–lxxvi, lxxi, America, SCHENCK Univ. Calif. Pub. Geol. 19 19 1931.

†*Auloceras striatus* **sp. n.** Trias Timor, KUTASSY Mag. K. földt Int. Evk. Pest pp. 88, 208 pl. iii f. 3a.—*A. striatus* **sp. n.** Limestone Timor, KUTASSY Verh. Geol. mijnb. Genoot. Ned. Kol.

†*Aulacosphinctes windhausenii* **sp. n.** Jurassic Argentina, WEAVER Mem. Univ. Washington 1 1931 p. 412 pl. xlv f. 300.

†*Aulacosphinctoides latedorsatus*, *kachhensis*, *meridionalis* **spp. n.** Kimmeridgian India, SPATH Mem. geol. surv. India N.S. 9 2 pp. 474, 527–530 figs.

†*Baculites bassei* **sp. n.** Madagascar, BESAIRIE Bull. Soc. Hist. Nat. Toulouse 60 2 193 p. 566 (222) pl. xxii f. 8, 8a.—*B. comanchensis* **sp. n.** Clay Texas, ADKINS Bull. Univ. Texas 1856 1918 p. 74 pl. ii f. 20–22.

†*Balatonites*, VOELCHER 912.

†*Belemnites madagascariensis*, **sp. n.** *pistilliformis* v. *perrieri* **var. n.** Madagascar, BESAIRIE Bull. Soc. Hist. Nat. Toulouse 60 2 193 pp. 549, 552 (205, 208) pl. xv f. 5, 5a, 2, 2a, 3, 3a; pl. xiii f. 4.—*B. minimus*, *paxillosus*, SCHERZER 763.

†*Belemnitidae*, COHEN 173.

†*Belemnopsis angusta* sp. n., STOLLEY Jahresber. Niedersächs. Geol. Vers. 20 pp. 111–136.

†*Beyrichites barbarossae*, RENZ 729.—B., VOELCHER 912.

†*Bigotites lenki* sp. n. p. 884 pl. xc f. 2 a–b, SCHMIDTILL & KRUMBECK Jahrb. preuss. geol. LdAnst. 51 1931.

†*Biplices wagurensis, anguinus, auritus* spp. n. Kimmeridgian India, SPATH Mems. geol. surv. India N.S. 9 2 pp. 403, 404, 423, 426, 427 figd.

†*Bohmoceras* gen. n. for *B. krekeleri* Wegn and B. löschneri sp. n., RIEDER Jahrb. preuss. geol. 51 pp. 690–692 pl. lxxviii f. 3–6 Die Lobenlinie ist in der Beschreibung des Gattungstypus besprochen.

†*Bostrychoceras* sp. n.?, ADKINS 4 p. 214.

†*Brodiceras courryense* sp. n. France, BRUN Bull. Soc. Sci. nat. 46 1928–29 p. 193 pl. iii f. 9.

†*Burenoceras* gen. n. with *B. pumilum* type, *expandum* spp. n. Cretaceous U.S.A., ULRICH & FOERSTE Missouri Bureau Geol. & Mines 24 pp. 208, 209 pl. xx ff. 30–33.

†*Cadoceras modiolaris* preoc., COX 195.

†*Cadomites orbignyi, bajociensis, compressus* spp. n. Bathonien, GROSSOUVRE Livre Jubilaire 1830–1930 Soc. geol. Fr. 2 1930 pp. 373, 374 pl. xl ff. 8, 5, 6.

†*Caeloceras (Peronoceras) millavense crateriformis* sp. et var. n. *krumbecki, tenellissimum*, C. (*Porpoceras*) *beurleni*, C. (cf. *Collina*) *lauxi*, C. (*Dactylioceras*) *pseudobraunianum, sorguense, termieri, mauryi, engeli* C. *freboldi, excavatum* spp. n. Upper Lias Aveyron, MONESTIER Mém. Soc. geol. Fr. Paleont. N.S. 7 1 1931 pp. 40–68 pls. i, ii, iii, ix.—C. *torus*, LANGE 505.

†*Cameroceras curvatoformis* sp. n. Ordovician Korea, KOBAYASHI Bull. Geol. Surv. Chosen 11 1 p. 42 f.—C. *huzzahense* sp. n. Dolomite U.S.A., ULRICH & FOERSTE Missouri Bureau Geol. & Mines 24 p. 211 pl. xxi f. 14.

†*Canavaria cultrarii, dubiosa, peloritana, gregalis, rosenbergi, silvestrii, sicula, ducetiana, kridioides, molesta, consideranda, morosa, inversa, intercalata, indecisa* spp. n., FUSINI Palaeontogr. ital. Pisa 31 pp. 132–136 pl. xvi.

†*Cardioceras kitchini* f., FIEBOLD 285.—C. *sokolovi, grumanticus* spp. n. Jurassic Spitzbergen, SOKOLOV & BODYLEVSKY Skr. Svalbard Ish. Oslo 35 pp. 86, 87, pls. vi, ix.

†*Ceratites discus, laevigatus, compressus*, KUMM 473.—C., RENZ 729.—C., KOELCHER 912.

†*Cheiloceras (Cheiloceras) sacculum complanatum* sp. n. [subsp. n.] Oberdevon Dill Mulde, MATERN Abh. preuss. geol. LdAnst. 134 1931 p. 34 fig.

†*Choffatia leptonota, naia, sakuntala, madani, transitoria mediocris, simulans, aurita* spp. n. *svorkaensis* nom. n. for *Perisphinctes recuperoi* Waagen non Gemmellaro, Callovian, SPATH Mems. geol. surv. India N.S. 9 2 pp. 329, 330, 346–362.

†*Clarkoceras poulsenii* sp. n. Cambro-Ordovician S. Manchuria, KOBAYASHI Japan. J. Geol. Geogr. Tokyo 8 3 1931 p. 165 pl. xvi.

†*Clionites*, ARABU 20.

†*Clydoniceras guerangeri, planum, nivernense* spp. n. Bathonien, GROSSOUVRE Livre Jubilaire 1830–1930 Soc. géol. Fr. 2 1930 pp. 380–382 pl. xxxix.

†*Coelonautilus subsulcatus* fig., AIGNER & HERITSCH 6.

†*Coreanoceras kemipoense* genotype, *kokaiense, tenuicurvatum, kini* gen. et spp. n. Ordovician Korea, KOBAYASHI Bull. Geol. Surv. Chosen 11 1 pp. 45–49 figs.

†*Cravenoceras edalense*, DORLODOT 235.

†*Crickites sahlgrundensis, scheldensis*, spp. n. Aberdevon Dill Mulde, MATERN Abh. preuss. geol. LdAnst. 134 1931 pp. 72, 73 figs.—C. *koeneni*, MATERN 550.

†*Cutchisphinctes* gen. n. type *Perisphinctes altiplicatus* Waagen Lower Callovian, SPATH Mems. geol. surv. India N.S. 9 2 pp. 285, 295.

†*Cycloceras laevigatum* fig., AIGNER & HERITSCH 6.—C. *krafftii* figd., BESAIRE 88.

†*Cyrtoceras gesneri* fig., AIGNER & HERITSCH 6.—G. *cambrica*, FOERSTE 280.

†*Dactylioceras commune*, KIEFFER 444.—D. *kanense* sp. n. Mesozoic Canada, McLEARN Trans. Roy. Soc. Can. 4 (3) 1930 p. 4 pl. 1.



†*Dakeoceras* **gen. n.** with *D. retrorsum* type, *normale*, *subcurvatum* **spp. n.** Dolomites U.S.A., ULRICH & FOERSTE Missouri Bureau Geol. & Mines 24 pp. 209, 210 pl. xx ff. 27–29.

†*Daphnites* (*Silenticeras*) *hatae* **subgen. et sp. n.** Trias, McLEARN Trans. Roy. Soc. Can. 4 (3) 1930 p. 16.

†*Deiradoceras* type *prerostratum* Spath with *bispinosum* Spath and *varinodosum*, *varicostatum* **spp. n.** Drift Zululand, HOEPEN Paleont. Navorsing Bloemfontein 1 2 1931 pp. 50–54 figs. 11–14.

†*Deiroceras* *python*, *richteri*, *curdsvillense*, *dismukesense*, *capitolense*, *nashvillense* **spp. n.**, FOERSTE & TEICHERT J. Sci. Labs. Denison Univ. 25 6 1930 pp. 292–296.

†*Deroceras* *laevesandwichiense* p. 251, BOETTGER 103.

†*Desmoceras* *agrioensis* **sp. n.** Lower Cretaceous Argentina, WEAVER Mem. Univ. Washington 1 1931 p. 437 pl. li f. 334.

†*Dichotomoceras* *predivisum* **sp. n.** Kimmeridgian India, SPATH Mem. geol. surv. India N.S. 9 2 pp. 403, 423 figd.

†*Dichotomosphinctes* *subhelenae* **sp. n.** Argovian India, SPATH Mem. geol. surv. India N.S. 9 2 pp. 404, 437 figd.

†*Dipoloceras* *evansi*, *subdelaruei*, *remotum*, *spinulosum*, *cornutum* (Pictet) *corbulata*, *c. multispinosa*, *equicostatum*, *e. crassa*, *cristatum* Brongn. *alata*, *pseudodaon*, *p. moniliformis*, *bouchardianum* Orb. *rectangularis*, *b. alticarinata* Gault England **spp. & vars. n.**, SPATH Mon. Palaeont. Soc. London 33 7 1931 353–378 figs.

†*Discosorus* *convideus* Hall, TEICHERT 853.

†*Discotoceras* **gen. n.** type *Hungarites raddei* Arthaber, Eotriassic Greenland, SPATH Medd. Grønland 83 1 p. 8.

†*Distefania* **gen. n.** type *Harpoceras* (*Grammoceras*) *villae* Gemmellaro, FUCINI Palaeont. ital 31 p. 143.

†*Di-Stefania* *ruggeroi*, *rotulata*, *inflexa*, *fabianii*, *falcula*, *nodosa*, *festiva*, *perlaeta*, *dubia* **spp. n.**, FUCINI Palaeontogr. ital. Pisa 31 pp. 145–146 pls. xix, xx.

†*Discoactinoceras* genotype *multiplexum* Kobayashi “ord. Foss. Corea and S. Manchuria p. 202 pl. xxii f. 7 a–d, 1926” **gen. et sp. n.**, KOBAYASHI Bull. Geol. Surv. Chosen 11 1 p. 56 f.

†*Dolorthoceras* *circulare* **gen. et sp. n.** Calcareous shales Central Ranges Asia, MILLER Amer. J. Sci. (5) 22 pp. 419, 420 figd.

†*Drepanoceras* type *rotundum* v. Hoepen with *rudis* **sp. n.** Drift Zululand, HOEPEN Paleont. Navorsing Bloemfontein 1 2 1931 pp. 46–49 figs. 9–10.

†*Dorsoplanites* *mirabilis* **sp. n.** Portlandian India, SPATH Mem. geol. surv. India N.S. 9 2 pp. 474, 526.

†*Dumortieria* *prisca*, *sparsicosta*, *munieri*, *irregularis*, *insigni-similis*, *levesquei*, *striatulo-costata*, *kochi*, *subundulata*, *nicklesi*, *bleicheri*, *brancoi*, *tabulata*, *pseudoradiosa*, *rhodanica*, *radicans*, *costula*, ROQUEFORT & DAGUIN 743.

†*Duvalia* *lata* *guillantonae* **var. n.** *D. sakalava* **sp. n.** Madagascar, BESAIRE Bull. Soc. Hist. Nat. Toulouse 60 2 193 pp. 550–551 (206–207) pl. xiv f. 6–8 pl. xv f. 7 7a.

†*Echioceras* *ruricostatum*, BOVIER 127.

†*Ellesmereoceras* *elongatum*, *subcircularis*, *curvatum*, ? *multicameratum*, *flexuostriatum*, *amplum* **spp. n.** Cambro-Ordovician S. Manchuria, KOBAYASHI Japan. J. Geol. Geogr. Tokyo 8 3 1931 pp. 159–163 pls. xvi, xvii, xix.

†*Elrodoceras* *osmanense*, *telleri* **spp. n.**, FOERSTE & TEICHERT J. Sci. Labs. Denison Univ. 25 6 1930 pp. 275–276.

†*Emaciaticeras* **gen. n.** type *Ammonites emaciatius* Catullo, FUCINI Palaeont. ital. 31 p. 119.—*E. zancleanum*, *retroplacatum*, *crassum*, *reverseplicatum*, *obliqueplicatum*, *archimedis*, *dalla-voltai*, *fervidum*, *emissum*, *radiolatum*, *incestum*, *levidorsatum*, *radiatum*, *fatuum*, *paladinoi*, *infirnum*, *flexicostatum*, *impeyum*, *dissimile*, *galataeae*, *piger*, *imitator* **spp. n.**, FUCINI Palaeontogr. ital. Pisa 31 pp. 121–130 pls. x–xiv.

*Endoceras*, BULMAN 141.

†*Endodiscosorus* with genotype *foersteri* **gen. et sp. n.** Niagaran Lk. Timiskaming, TEICHERT Amer. Mus. Nov. 1931 512 pp. 2, 10 fig.

†*Engonoceras grimsdalei* sp. n. White Nothe Dorset, SPATH Mon. Palaeont. Soc. London **83** 7 1931 p. 345 figs.

†*Eophyllites* gen. n. type *Monophyllites dieneri* Arthaber Monophyllitidae, SPATH Medd. Grønland **83** 1 p. 85.

†*Eopsiloceras* gen. n. *Mojsvarites planorboides* Pompeckj, Eotriassic Greenland, SPATH Medd. Grønland **83** 1 p. 9.

†*Eoptychites* gen. n. type *Proptychites obliqueplicatus* Waagen, Eotriassic Greenland, SPATH Medd. Grønland **83** 1 p. 40.

†*Epadrianites* gen. n. type *E. (Agathiceras) timorensis* (Boehm.) SCHINDEWOLF SitzBer. Geol. LdAnst. **6** p. 200.

†*Epaspidoceras* gen. n. (Aspidoceratidae) type *E. subdistractum* (Waagen) Lowest Kimmeridgian, Gangta Bét., SPATH Palaeont. Ind. Calcutta **9** 2 5 1931 pp. 596, 617.

†*Epengonoceras aspenanum* sp. n. Cretaceous Wyoming, REESIDE & WEYMOUTH Proc. U.S. Nat. Mus. **78** 17 1931 p. 16 pl. i f. 15; pl. ii f. 2-5; pl. iii f. 5-7.

†*Epiglyptioceras* gen. n. type *Glyptioceras meneghini* Gemmellaro, Eotriassic Greenland, SPATH Medd. Grønland **83** 1 p. 13.

†*Eremoceras wanwanense* sp. n. Cambro-Ordovician, S. Manchuria, KOBAYASHI Japan. J. Geol. Geogr. Tokyo **8** 3 1931 p. 164 pl. xvi.

†*Euaspidoceras neumayri* nom. n. for *Aspidoceras peramatum* Neumayr 589, *lyra*, *ivesense* spp. n. 591, *babeatum* v. *subcostata* var. n. 591, *waageni* nom. n. 599 for *Aspidoceras peramatum* Waagen non Sow. and var. 600, Jurassic Kachh., SPATH Palaeont. Ind. Calcutta **9** 2 5 1931 p. 589.—*E. pyrrha* 596, *acanthodesi* 597, *waageni robusta* 600, *obesum* 601, *blakei* 604, *jumarensense* 605, *cornutum* 606, *simile* 608, *badiense* 609, var. et spp. n. *cabassoense* nom. n. for *Aspidoceras faustum* auctt. Argovian p. 607; Jurassic Kachh., SPATH Palaeont. Ind. Calcutta **9** 2 5 1931 pp. 595-610 pls.

†*Euaspidoceratinae* subfam. n. Aspidoceratidae Jurassic Kachh., SPATH Palaeont. Ind. Calcutta **9** 2 5 1931 pp. 588.

†*Eucalycoceras leonense* sp. n. Mantelliceratidae Cretaceous Texas, ADKINS Bull. Univ. Texas **2838** 1928 p. 240 pls. xxviii f. 1; xxix f. 3.

†*Euhoplites tuberculatus*, Cox 195.

†*Fagesia haarmanni, pervinquieri* spp. n. Marl and Limestone Mexico, BÖSE Bull. Univ. Texas **1856** 1918 pp. 211-212 pls xiv, xv.—*F. californica, shastensis, siskiyouensis* spp. n. Upper Cretaceous California and Oregon, F. M. ANDERSON J. Paleont. Sharon Mass. **5** 2 pp. 122-126 pls. xv-xvii.

†*Fanninoceras fannini, carlottense, kunae, k. var. latum, lowrie* gen. spp. et var. nov. Mesozoic Canada, McLEARN Trans. Roy. Soc. Can. **4** (3) 1930 pp. 4, 5 pls. i, ii.

†*Flickia boesei* sp. n. Clay Texas, ADKINS Bull. Univ. Texas **1856** 1918 p. 85 pl. i ff. 1-3.

†Flickidae fam. n., ADKINS Bull. Univ. Texas Austin **2838** 1928 p. 217.

†*Fontanelliceras* gen. n. [type] *Harporoceras fontanellense* Gemmellaro, FUCINI Palaeont. ital. **31** p. 110.—*F. longispiratum* sp. n., FUCINI Palaeontogr. ital. Pisa **31** p. 111 pl. viii.

†*Forbesiceras obtectum* figd., BESAIRIE **88**.

†*Gastrioceras welleri*, BISAT & OTHERS **95**.—*G. subcrenatum* pp. 49, 53, RENIER **723**.—*G. romanowskyi* "sp. n." [n. n.], TOUMANSKY **882**.—*G. romanowskyi* sp. n. Permo-Carboniferous Beds of the Crimea, TOUMANSKY pp. 74, 106 fig. **883**.

†*Gaudryceras salinarum* sp. n. Cretaceous Salinas, DOUVILLÉ Bol. Mus. Lab. Min. Geol. Univ. Lisboa **1** 1 1931 p. 42 pl. i f. 3 text-fig.

*Gauthiericeras margae, roquei* figd., LOMBARD **518**.

†*Glyptioceras asturicum crenistria*, SCHMIDT **777**.

†*Glyptophriceras minor, gracile, pascoe, pseudellipticum*, gen. et spp. n. Genotype *Xenodiscus aequicostatus* Diener, Eotriassic Greenland, SPATH Medd. Grønland **83** 1 p. 33.

†*Goniatis striatus, spirale, subcircularis, newsome*, DELÉPINE **222**.—*G.*, DELÉPINE **223**.

†*Grammoceras saemanni* f., FIEBOLD **285**.

†*Grossouvria nurrhaensis*, ophioides, *pseudocobra* spp. n. Divesian India, SPATH Mems. geol. surv. India N.S. 9 2 pp. 330, 370, 371 figd.

†*Gymnites*, RENZ 729.

†*Gymnotoceras todtmannae* sp. n. Trias Spitzbergen, FREBOLD Abh. naturw. Hamb. 22 p. 302 pl. i f. 6.

†*Hamites turoniensis*, BEURLIN 90.

†*Hammatoceras subplanatum* sp. n., France, BRUN Bull. Soc. Sci. nat. 46 1928-1929 p. 183 pl. i f. 4, pl. iii f. 1.

†*Homoceratoides jacksoni*, BISAT & OTHERS 95.

†*Hamulina worthensis* sp. n. Clay Texas, ADKINS Bull. Univ. Texas 1856 1918 p. 71 pl. ii ff. 23-26.

†*Hannaoceras* nom. n. genotype *Am. nasturtium* Diener for *Smithoceras* Hanna non Diener, TOMLIN P.M.S. 19 174.

†*Harpoceras eseri* fig., FREBOLD 285. —*H. lythense*, KIEFER 444. —*H. maurelli allifordense*, spp. n. mesozoic Canada, McLEARN Trans. Roy. Soc. Can 4 (3) 1930 p. 4 pls. i, ii.

†*Harpoceratoides serotinum*, *connectens*, *soloniacensis*, *alternatus*, *lympharum*, MONESTIER 571.

†*Haugia humilis*, *pustulosa*, *navis*, *allobrogensis*, & spp. nov. ind., MONESTIER 571.

†*Hemilecanites* gen. n. type *Lecanites discus* Arthaber Xenoceltitidae, Eotriasie Greenland, SPATH Medd. Grønland 83 1 pp. 13, 85, 89.

†*Hibolites parvus*, *varians*, sp. n. *H. p. stilla*, *cuspidata* vars. n. [nomina nud.], STOLLEY p. 124.

†*Hildoceras comense praegriineri* var. n. Lias Aveyron, MONESTIER Mem. Soc. géol. Fr. Paleont. N.S. 7 1 1931 p. 17 pls. v, ix, *H. frantzi*, *bayani*, *aptum*, MONESTIER.

*Holcobelus* gen. n. *trauthi* sp. n. Bayeux, STOLLEY Jahresber Niedersächsisch Geol. Ver. 20 p. 133 T. xxiv f. 7, 8.

†*Hoplites michaelis*, figd., BESAIKIE 88. —*H. (Berriasella) chomeracensis berthel*, *subcalisto*, *H. Kaffae*, *H. (Thurmannites) thurmanni*, GERBER 309. —*H. dentatus sulcata* p. 12, *escragnolensis angustumbilicata* p. 14, vars. n., SEITZ Jahrb. preuss. geol. LdAnst. 51 1.

†*Hubertoceras mutans* Waagen var. *evoluta*, *hubertus*, *h. densicostata*, *h. rotunda*, *h. flexicostata*, *omphalodes* Waagen var. *polymorpha*, *o. herculae*, *o. depressa*, *madagascariense* spp. et vars. n., SPATH Mems. geol. surv. India N.S. 9 2 pp. 285, 316-322 figd.

†*Indosphinctes errans*, *peregrinus*, *natvaris*, *patiniformis*, *urbanus*, *rusticus* spp. n. Callovian India, SPATH Mems. geol. surv. India N.S. 9 2 pp. 329, 334-343, figd.

†*Isculites schooleri* sp. n. Trias B. C. McLEARN Trans. Roy. Soc. Can. 4 (3) 1930 p. 17.

†*Isculitoides* gen. n. type *Isculites originis* Arthaber Paranannitidae, Eotriasie Greenland, SPATH Medd. Grønland 83 1 p. 85.

†*Japonites dieneri*, RENZ 729.

†*Judicarites*, VOELCHER 912.

†*Kanabicerias* gen. n. of *Acanthoceratidae* type *K. wyomingense* sp. n. Cretaceous Wyoming, REESIDE & WEYMOUTH Proc. U.S. Nat. Mus. 78 17 1931 pp. 11, 12 pl. i f. 14.

†*Karakoramoceras stoliczkai* gen. et sp. n. Calcareous shales Central Ranges Asia, MILLER Amer. J. Sci. (5) 22 pp. 422, 423 figd.

†*Katrolicerias pottingeri* J. Sow. *obtusifrons*, *K. waageni* for *Perisphinctes pottingeri* Waagen pars. *sowerbyi*, *s. difficilis*, *lerense*, *zitteli*, *arenosum*, *depressum*, *d. pettos*, *pingue*, *subkatrolense*, *s. splendens*, *katrolense* Waagen var. *fissiplicata*, *pallasiforme* spp. vars. et nom. nov. Kimmeridgian India, SPATH Mems. geol. surv. India N.S. 9 2 pp. 474, 505-520 figd.

†*Kepplerites svalbardensis* sp. n. Callovien Spitzbergen, SOKOLOV & BODYLEVSKY Skr. Svalbard Isk. Oslo 35 p. 79 pl. v.

†*Kinkelinicerias kinkelini* Dacqué var. *senilis*, *catillus*, *subwaageni*, *discoideum*, *indra*, *varuna*, *crassiplanula*, *krishna*, *pseudomaya* var. et spp. n. Division and Callovian, SPATH Mems. geol. surv. India N.S. 9 2 pp. 285, 307-315 figd.

†*Koenenites galeatus* sp. n. Oberdevon Dill Mulde, MATERN Abh. preuss. Geol. LdAnst. 134 1931 p. 75 figs.

†*Laevaptychus* with *hybonotus* n. n. *Aptychus* von *Ammonites* A. Oppel, A. von *Waagenia* h. Trauth, TRAUTH Ann. naturh. Mus. Wien 45 p. 39.—L.

*longus* (Mey.) *seriopora* var. n. L. l. *uhlandi-seriopora*, l. *uhlandi-taxopora*, *L. tenuilongus* n. f. t. *cincta*, t. *taxopora*, t. *heteropora-zonophora*, *L. laullingensis*, *longobliquus*, *farrei*, *latus* (Park) *uhlandi*, l. *meyrati*, l. *seriopora*, l. *taxopora*, l. *vermipora*, l. *uhlandi-seriopora*, l. *uhlandi-taxopora*, l. *Meyrati-seriopora*, *meneghinii* (Zigno) *rugosa*, m. *taxopora*, *hoptisus* (Spath) *taxopora*, h. *rugocincta-taxopora*; *L. tenuibrevis*, *tenuobliquus*, *latissimus*, l. *uhlandi*, l. *meyrati*, l. *seriopora*, l. *taxopora*, l. *rimosa*, l. *vermipora*, *flamandi* (Thurm) *zonophora*; *L. latohoplisus*, l. *taxopora*; *L. latosublaevis*, *latoobliquus*, spp. et vars. n. figd., TRAUTH Ann. naturh. Mus. Wien 45 pp. 49-118.

†*Latidorsella vacaensis* sp. n. Lower Cretaceous Argentina, WEAVER Mem. Univ. Washington 1 1931 p. 439 pls. liii-lv.

†*Lecanites spitzbergensis* sp. n. Trias Spitzbergen, FIEBOLD Abh. Naturw. Hamb. 22 p. 299 pl. i f. 1.

†*Leurorthoceras altopontense*, *lebanonense* spp. n., FOERSTE & TEICHERT J. Sci. Labs. Denison Univ. 25 6 1930 pp. 257-258.

†*Leymeriella pseudoregularis*, *renascens*, *heimi*, *fusseneggeri* spp. n., SEITZ Jahrb. preuss. geol. LdAnst. 51 1 pp. 24-31.

†*Libycoceras ismaeli soudanense* var. n. Cretaceous Soudan, PERÉBASKINE Bull. Soc. géol. Fr. 30 p. 130 pl. xi.

†*Lithacoceras pseudovirguloides*, *pseudobangei*, *indicum* spp. n. *jelskii gracilis* var. n. *submazuricum* nom. n. for *Perisphinctes chlorolithicus* Waagen non Gümbel Kimmeridgian India Mem. geol. surv. India N.S. 9 2 pp. 446, 447, 453, 454 figd.

†*Lophoceras umsinense* gen. et sp. n. Drift. Zululand, HOEPFEN Paleont. Navorsing Bloemfontein 1 2 1930 pp. 40, 41 figs. 1-3.

†*Lytoceras romani* sp. n. France, BRUN Bull. Soc. Sci. nat. Nîmes 46 1928-1929 p. 177 pl. i f. 3.—*L. annulosum* sp. n. Lias France, MONESTIER Mém. Soc. géol. Fr. Paleont. N.S. 7 1 1931 p. 9 pls. vi, ix.—*L. vide Gaudryceras*, DOUVILLÉ 236.—*L. polyancho-mennum*, *adeloides orsinii*, *montanum*, *polycyclum*, FLORIDIA 279.—*Lytoceras*, NAGAO 589.

†*Lytrophiceras kochi commune wordiei*, *sybkyokticum* gen. et spp. n. type *Ophiceras chamunda* Diener, Eotriassic Greenland, SPATH Medd. Grønland 83 1 p. 19-27 pls. iv, v.

†*Maclurites* sp. figd., REED Rec. geol. surv. Ind. 65 3 1931 p. 438 717.

†*Macrocephalites macrocephalus* figd., BESAIRE 88.—*M. macrocephalus*, *subtumidus*, FLORIDIA 279.

†*Mammites conciliatus* figd., BESAIRE 88.—*M. mohovaniensis* sp. n. Marl Mexico, BöSE Bull. Univ. Texas 1856 1918 p. 206 pl. xii f. 6, 8.

†*Mantelliceras sellardsi* sp. n. Mantelliceratidae Cretaceous Texas, ADKINS Bull. Univ. Texas Austin 2838 1928 p. 239 pls. xxv f. 1; xxvi f. 4.

†*Manticoceras carinatum*, *cordatum*, *intumescens*, *affine*, MATERN 550.—*M. paradoxum*, *sulcatum* sp. n., *M. californiae crassoides* for *M. c. crassa* Wedekind Oberdevon Dill Mulde, MATERN Abh. preuss. geol. LdAnst. 134 1931 pp. 63-69 fig.

†*Maruyamaceras shimamurai* genotype, *watanabei*, *peshanensis* gen. et spp. n. Ordovician Korea, KOBAYASHI Bull. Geol. Surv. Chosen 11 1 pp. 53-55 figs.

†*Medlicottia vogli* "sp. n." [n. n.], TOUMANSKY 882.

†*Meekoceras markhami* figd., BESAIRE 88.—*M. jugoslavicus* sp. n. Trias, ŽIVKOVIC Ann. géol. Pen. balkan. Beograd. 10 2 1931 p. 92.

†*Meneghinia* gen. n. type *Ammonites ruthenensis* Reynes, *M. mexanensis*, *speciosa*, *quagliarelloii* spp. n., FUSINI Palaeontogr. ital. Pisa 31 pp. 108-110 pl. viii.

†*Mercaticeras* gen. n. type *Harpoceras (Hildoceras) mercati* Gemmellaro, FUSINI Palaeont. ital. 31 p. 111.

†*Metacalycoceras*? *tarrantense* sp. n. also? 2 n. spp.? (Mantelliceratidae) Cretaceous Texas, ADKINS Bull. Univ. Texas Austin 2838 1928 p. 241 pls. xxviii f. 3; xix f. 1.

†*Metacoceras cavatiforme angulatum* var. n. Limestone U.S.A., SAYRE Kansas Univ. Bull. p. 155 pl. xx f. 6-6a.

†*Metagravesia decipiens* gen. et sp. n. Middle Kimmeridgian India, SPATH Mem. geol. surv. India N.S. 9 2 pp. 474, 504 figd.

†*Métalegoceras* gen. n. type *M. evolutum* (Han.), SCHINDEWOLF Sitz Ber. Geol. LdAnst. 6 p. 199.

†*Metapeltoceras* gen. n. Aspidoceratidae type *M. armiger* (Joh. C. Sow.), *M. flavum* sp. n. Jurassic Kachh., SPATH Palaeont. Ind. Calcutta 9 2 5 1931 pp. 559, 560, 574, 576 pls.

†*Metinyoites* gen. n. *Vishnuites discoidalis* Weter, Eotriassic Greenland, SPATH Medd. Grønland 83 1 p. 29.

*Metoicoceras pontieri*, DUTERTRE 244. —*Metoicoceras*, REESIDE & WEYMOUTH 718.

†*Metotoceras* subgen. n. of *Otoceras*, type *M. dieneri* nom. n. = *Hungarites* sp. ind. Diener, Eotriassic Greenland, SPATH Medd. Grønland 83 1 p. 8.

†*Micracanthoceras brightoni* sp. n. Tithonian India, SPATH Mems. geol. surv. India p. 544 figs.

†*Mimogoniatis* gen. n. type *zorgensis* A. Roem, EICHENBERG N. Jahrb. geol. Paläont. Stuttgart 65 1 p. 181 pls. ix, x text-fig.

†*Mimoceras laevis* sp. n., EICHENBERG N. Jahrb. Geol. Paläont. Stuttgart 65 1 p. 181 pl. x f. 6.

†*Mimosphinctes* genotype *tripartitus*, *bipartitus* gen. et spp. n., EICHENBERG N. Jahrb. Geol. Paläont. Stuttgart 65 1 pp. 184, 185 pls. ix, x.

†*Mortoniceras worthense* sp. n. Clay Texas, ADKINS Bull. Univ. Texas 1856 1918 p. 91 pl. i ff. 6–10, 18–19, 26.

†*Munsteroceras sphaeroidale*, *corpulentum*, *inconstans*, *complanatum*, DELÉPINE 222.

†*Nautilus veris* sp. n. Carboniferous, HERITSCH Abh. geol. BundesAnst. Wien 23 3 1931 p. 44 pl. i ff. 8–12.—*N. pompilus*, TALAVEIRA & FAUSTINO 844.

†*Nautilidae*, COHEN 173.

†*Nazensiceras* gen. n. type *Har poceras* (*Grammoceras*) *naxense* Gemmellaro, *N. modicum*, *depravatum*, *pulcherrimum*, *insertum*, *scuderii*, *tuberosum*, *aretusae*, *excellens*, *gentile*, *rotator*, *decoratum*, *imitator*, *absimile*, *validum*, *imbelle*, *speciosum*, *rigidum*, *inflexum* spp. n., FUCINI Palaeontogr. ital. Pisa 31 pp. 137–143 pls. xvii, xviii.

†*Neaspidoceras* gen. n. (Aspidoceratidae) *tenuispinatum* (Waagen), with *wagurenses*, *varians* spp. n. Jurassic Kachh., SPATH Palaeont. Ind. Calcutta 9 2 5 1931 pp. 595, 613–615 pls.

†*Neoanptychus tenuiliratus* gen. et sp. n. Cretaceous Japan, NAGAO J. Fac. Sci. Hokkaido (4) 1 1931 p. 216 figd.

†*Neohibolites semicanaliculatus*, *apitiensis*, *minimus*, BOUTAKOFF 123.—*N. minimus subquadrata*, *incisa*, vars. n., STOLLEY Jahresber. Niedersäch. Geol. Ver. pp. 60, 61.

†*Neokentroceras* n. sp.? ADKINS 4 p. 235.

†*Neoptychites cephalotus* figd., BEAUBIE 88.

†*Neostacheoceras hanieli* (type) gen. et sp. n., SCHINDEWOLF Sitz Ber. Geol. LdAnst. 6 p. 199, 201.

†*Nybyoceras foerstei* sp. n. Lower Ordovician Manchuria, ENDO J. Sci. Labs. Denison Univ. 25 7 p. 298 pl. lx.—*N. ulrichi* sp. n., FOERSTE & TEICHERT J. Sci. Labs. Denison Univ. 25 6 1930 p. 278.

†*Obtusicosites waageni*, *devi*, *d. crassa*, *ushas*, *nandi*, *purpuratus*, *p. rotunda* spp. et vars. n. Callovian, SPATH Mems. geol. surv. India N.S. 9 2 pp. 285, 299–305 figd.

†*Olcostephanus superstes*, F. M. ANDERSON 11.

†*Ophiceras greenlandicum*, *transitorium*, spp. n. Eotriassic Greenland, SPATH Medd. Grønland 83 1 pp. 16, 17 pls. i, ii.

†*Oppelia rollieri*, *tenuilobata*, FLORIDIA 279.

†*Orionoides* Type *pseudorion* (Waagen) *samatrensis*, *sita*, *purpureus* *crioceras anguinus*, gen. et spp. n. *indicus* nom. n. Divesian, Callovian India, SPATH Mems. geol. surv. India N.S. 9 2 pp. 330, 331. 384.

†*Ormoceras cannonense covingtonense*, *ferecentricum*, *lindseyi* *normanense*, *troosti* spp. n., FOERSTE & TEICHERT J. Sci. Labs. Denison Univ. 25 6 1930 pp. 287–291.

†*Orthildaites* gen. n., FUCINI Palaeont. ital. 31 p. 119.



†*Orthoceras concomitatum*, *laterale*, *morrisianum*, *sollasi*, figd., AIGNER & HERITSCH 6.—*O. attenuatum*, REED 714.—*O. zeus*, RUEDEMANN & COOK p. 63 753.—*O. attarus*, FOERSTE 280.—*O. multilabiatum*, *lateseptatum*, *campanile*, *dubium*, *triadicum*, *celticum*, *elegans* figs., HERITSCH 376.—*O. accident* and *variation*, SARDESON 758.—*O. multicameratum*, *beltrami*, *socialis*, SARDESON 758.—*O. clarkei* p. 243 fig., *cuyanus* p. 244 fig., *cabrerae* p. 246 fig., *spp. n.* Paleozoic San Juan, DE SAEZ Notes Prelim. Mus. La Plata 1 2 1931.—*O. hadai* *sp. n.* Cambro-Ordovician S. Manchuria, KOBAYASHI Japan J. Geol. Geogr. Tokyo 8 3 1931 p. 170 pl. xix.—*O. kansasense* *sp. n.* Limestone U.S.A., SAYRE Kansas Univ. Bull. p. 153 pl. xix f. 9-12.

†*Otosphinctes rotiformis*, *jacki* *spp. n.* Argovian India, SPATH, Mems. geol. surv. India N.S. 9 2 pp. 403, 412, 414 figd.

†*Oxynticeras oxynotum*, BOVIER 127.

†*Oxyteuthis depressus*, *senilis*, *germanicus*, *hibolitiformis* *spp. n.* *O. descendens desinens* *sp. et var. n.*, *O. pugio rimata* *var. n.* [nomina nud.], STOLLEY pp. 120, 121.

†*Oxytropidoceras* *spp. n. ?* ADKINS 4 pp. 226, 228.

†*Oxytropidoceras cantianum* *sp. n.* Lower Gault Folkestone, SPATH Mon. Palaeont. Soc. London 33 7 1931 p. 351 figs.

†*Pachyplanulites nerunaensis*, *irregularis* *spp. n.* Argovian, Kimmeridgian India, SPATH Mems. geol. surv. India N.S. 9 2 pp. 404, 430, 433 figd.

†*Pachysphinctes major* *nom. n.* for *Perisphinctes torquatus* Waagen non Sow. *robustus*, *granti*, *crassus* *spp. n.* *bathyplocus* Waagen *vars. sparsicostata*, *serpentina*, *obesa* *vars. n.* *linguiferus*, *wantraensis symmetricus*, *orientalis* *spp. n.* Kimmeridgian India, SPATH Mems. geol. surv. India N.S. 9 2 pp. 473, 489-500 figd.

†*Paracellites hoeferi sphiensis* "var. n." [n. n.], TOUMANSKY 882.—*P. hoeferi* Gemm. *sphiensis* *var. n.* Permian Carboniferous Beds of the Crimea, TOUMANSKY pp. 63, 102 figs. 883.—*P. bamianus* *sp. n.* Carboniferous Afghanistan, REED Palaeont. Ind. 19 p. 39 pl. iv f. 16, 16a.

*Paracellitidae* *fam. n.*, SPATH Medd. Grønland 83 1 p. 13.

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*Paralegoceras jacksoni*, DAVID & SÜSSMILCH pp. 510, 520 216.

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†*Parapachydiscus streckeri* *sp. n.* Cretaceous Texas, ADKINS Bull. Univ. Texas Austin 2838 1928 p. 221 pl. xxxv f. 1, pl. xxxvi ff. 3-4.

†*Paratrachyceras*, SHIMIZU 788.

†*Parkinsonia proversa* *sp. n.* Bathonian, GROSSOUVRE Livre Jubilaire 1830-1930 Soc. géol. Fr. 2 1930 p. 372 pl. xxxix.—*P. with wetzeli* *sp. n.* p. 862, pl. lxxxii, f. 8 a-c, *bentzi* *sp. n.* p. 870 pl. lxxxvi f. 1 a-c, *augusto-quenstedti* *sp. n.* p. 881 = *Amm. parkinsoni* Quenst., SCHMIDTIL & KRUMBECK Jahrb. preuss. geol. LdAnst. 51 1931.

†*Pericyclus impressus*, *fasciculatus*, *furcatus*, *princeps*, DELÉPINE 222.

†*Perisphinctes denseplicatus*, *funatus* *biplicatus* figd., BESAIRE 88.—*P. n. var. aff. fontainnesi* Choffat, *P. lucugensis* figs., COGOLO 172.—*P. birmensdorfensis* and *spp. p.* 118, 121, FALLOT 260.—*P. heteroplocus*, FLORIDA 279.—*P. planula* *var. luzevoluta* figs., VINASSA DE REGNY 908.—*P. (Virgatosphinctes) dacquei* *sp. n.* Jurassic Africa Tagfidadaedi, BASSE Mem. Soc. géol. Fr. Paléont. N.S. 6 p. 113 pl. iv ff. 15 a-b.—*P. inflexus*, *dassei*, *detortus*, *fortecostatus*, *fascicularis*, *spp. n.* Bathonian, GROSSOUVRE Livre Jubilaire 1830-1930 Soc. géol. Fr. 2 1930 pp. 365-369 plates.—*P. kheraensis*, *colei* *spp. n.* Oolite, India, SPATH Mems. geol. surv. India N.S. 9 2 pp. 403, 420, 421 figd.

†*Pelloceras kachhense* *nom. nov.* (Kachh. Jurassic) for *P. athleta* Waagen (pars.), SPATH Palaeont. Ind. Calcutta 9 2 5 1931 pp. 560, 561 pl.—*P. dorsetense* *nom. n.* (= *Ammonites athleta* Damon pars. 1888 pl. xviii fig. 7 only), SPATH Palaeont. Ind. Calcutta 9 2 5 1931 p. 555.—*P. metamorphicum* 564, *tetragonum* 565, *kumagunense* 566, *solidum* 568, Jurassic Kachh., SPATH Palaeont. Ind. Calcutta 9 2 5 1931 pp. 560-568 pls.

†*Peltoceratoides semirugosus* vars. *densicostata*, *robusta* vars. n. *indicus* sp. n. Jurassic Kachh., SPATH Palaeont. Ind. Calcutta 9 2 5 1931 pp. 561, 579–582 pls.

*Peroniceras dravidicum* figd., LOMBARD 518.—*P. (Gauthiericeras) margae* f., STEPHANOFF 819.

†*Pervinquieria* spp. n. ? ADKINS 4 pp. 232, 234.

†*Pfluckeria* gen. n. misspelled *Pfuckeria* p. 112, Zool. Rec. 1930.

†*Phariceras acutum* sp. n. Oberdevon Dill Mulde, MATERN Abh. preuss. geol. LdAnst. 134 1931 p. 88 figs.

†*Phylloceras disputabile*, *jaraense*, *mediterraneum*, figd., BESAIRE 88.—*P. kunthi*, *mediterraneum*, *disputabile*, *kudernatschi*, *loryi*, *silenium empedoclis benacense*, FLORIDIA 279.

†*Piloceras wolungense*, *w. compressa*, sp. et var. n. Cambro-Ordovician S. Manchuria, KOBAYASHI Japan J. Geol. Geogr. Tokyo 8 3 1931 p. 170 pls. xvii–xix.

†*Placenticeras syrtale costata* var. n., RIEDER Jahrb. preuss. geol. 51 p. 696 pl. lxxix f. 2.

†*Poculisphinctes kachhensis* sp. n. Divesian India, SPATH Mems. geol. surv. India N.S. 9 2 pp. 330, 383.

†*Ponticeras sahlgrundensis* sp. n. Oberdevon Dill Mulde, MATERN Abh. preuss. geol. LdAnst. 134 1931 p. 80 figs.

†*Popanoceras hanieli* sp. n., *scrobiculatum martensis*, var. n. [n. n.], TOUMANSKY 882.—*P. wanneri* sp. n. Permo-Carboniferous Beds of the Crimea, TOUMANSKY pp. 17, 84 883.

†*Praehaploceras zwieselei* gen. et sp. n. Lias Aveyron, MONESTIER Mem. soc. géol. Fr. Paleont. N.S. 7 1 1931 p. 69 pls. vii, ix.

†*Praeleioceras* gen. n. *naxosianum*, *expulsum*, *calamitosum*, *insuetum*, *diodoroi*, *revocatum*, *ptychense*, *haasianum*, *silvestrii*, *angioinum*, *clarenzae*, *gracile*, *lamacoi*, *niciae*, *micitoi*, *dinae* spp. n., FUCINI Palaeontogr. ital Pisa 31 p. 93 100 pls. v–vi.

†*Praeparkinsonia garantiformis*, *subprotracta*, *subbaculata*, gen. et spp. n., SCHMIDTILL & KRUMBECK Jahrb. preuss. geol. 51 pp. 854, 855 pl. lxxxii f. 1 a–b, 2 a–c.

†*Presforianites* gen. n. type *Danubites strongi* Hyatt & Smith Xenoceltitidae, Eotriassic Greenland, SPATH Medd. Grønland 83 1 p. 85.

†*Prenkites timorensis* nom. n. for *Columbites* sp. indet. Welter, SPATH Medd. Grønland 83 1 p. 77.

†*Prionotropis eaglensis* sp. n. Cretaceous Texas, ADKINS Bull. Univ. Texas Austin 233 1929 p. 250 pl. xxxii ff. 1–2.—*P. echinatus* sp. n. Cretaceous Salinas, DOUVILLÉ Bol. Mus. Lab. Min. Geol Univ. Lisboa 1 1 1931 p. 34 pls. iii, iv.—*P. borealis* sp. n. Cretaceous Alberta, WARREN Trans. Roy. Soc. Can. IV (3) 1930 p. 25.

†*Proarcestes harcieli*, *bicarenatus*, SHIMIZU 789.

†*Properisphinctes* gen. n. type *Perisphinctes bernensis* P. de Loriol. Divesian India, SPATH Mems. Geol. surv. India N.S. 9 2 pp. 403, 404 figd.

†*Propinacoceras affine simplex* var. n. *P. saramansis*, *almensis* "spp. n." [n. n.], TOUMANSKY 882.—*P. affine* Gemm. *simplex* var. n., *soramense*, *almense*, spp. n. Permo-Carboniferous Beds of the Crimea, TOUMANSKY pp. 51–54, 96–98 figs. 883.

†*Proplanulites dacquéi*, *krakoviensis*, *spirorbis*, BEURLEN 90.

†*Proptychites rosenkrantzi* sp. n. Eotriassic Greenlands, SPATH Medd. Grønland 83 1 p. 40 pl. vii.

†*Proptychitoides* gen. n. type *P. decipiens* nom. n. = *Proptychites latifimbriatus* Arthaber Eotriassic Greenland, SPATH Medd. Grønland 83 1 p. 39.—†*P. nopesai* nom. n. for *Proptychites obliqueplicatus* Arthaber non Waagen, Eotriassic Greenland, SPATH Medd. Grønland 83 1 p. 40.

†*Protacanthoceras angolaense* nom. n. for *Acanthoceras lyelli* Douvillé, SPATH Mon. Palaeont. Soc. London 83 7 1931 p. 316 figs.

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†*Protrachyceras chlnokyi*, RENZ 729.—*P. sikanianus* sp. n. Trias B.C., McLEARN Trans. Roy. Soc. Can. IV (3) 1930 p. 16.

†*Pseudagathiceras* gen. n. *Ps. (Agathiceras) wichmanni* Harriel, SCHINDEWOLF SitzBer. Geol. LdAnst. 6 p. 200.

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# IX. CRUSTACEA

ARRANGED BY

W. L. SCLATER, M.A.

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†*Mimaster hexagonalis* gen. et sp. n. from the Devonian beds in Germany of uncertain affinities between Crustacea and Trilobita, GÜRICH 141.

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# X. ARACHNIDA

TO WHICH ARE ADDED

ARTHROPOD GROUPS

OTHER THAN

INSECTA AND CRUSTACEA.

[GIGANTOSTRACA (XIPHOSURA, SYNXIPHOSURA, EURYPTERIDA,  
TRILOBITA), PANTOPODA, TARDIGRADA, PENTASTOMIDA,  
MYRIOPODA, AND PROTOTRACHEATA.]

ARRANGED BY

SUSAN FINNEGAN, B.Sc., Ph.D.

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*Schizomeritius* **subgen. n.** vide *Polydesmus*.

*Schizoturanicus* **subgen. n.** vide *Polydesmus*.

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# XI. INSECTA

BY

THE IMPERIAL INSTITUTE OF ENTOMOLOGY

## FOREWORD

THE attention of readers is directed to the fact that owing to the necessity of keeping the "Insecta" part within reasonable limits, entomological papers written entirely from an economic standpoint are omitted, but abstracts of these will be found in the *Review of Applied Entomology*. Very brief systematic papers, usually those dealing only with a single species, are noticed in the systematic portion only and do not appear in the list of titles.

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*Insecta*: HELLÉN, list of insects new to Finland, 1155; SJÖSTEDT et al., insect fauna of Abisko National Park, Sweden, 2606; WNUKOWSKY, supplem. list of insects from Omsk district, 3067, 3068.—*Coleoptera*: DMITRIEV, *Scarabaeids* of Penza, C. Russia, revision, 686; HANSEN, *Hydrophilidae*, Denmark, 1081; JANSSON, *Coleoptera* new to Swedish fauna, 1333; KROGERUS, *Catops*, revision of Danish, Norwegian, Swedish and Finnish spp., 1535; PALM, *Coleoptera* new to Sweden, 2109; SAALAS, distribution of *Scolytidae* in Finland, 2436; SHCHEGOLEVA-BAROVSKAYA, *Mordellidae*, Ingria, 2565.—*Hymenoptera*: BIRULA, *Vespula*, distribution, 275; KARAWAJEW, ant fauna of Sweden, 1400, ants of Jakutsk, list, 1403; KISSELEWA, ants from Ussuri Region, 1449; MEIER, *Ichneumonidae* from Ussuri, 1821; PULKINEN, *Sphegidae* of Finland, keys, 2284.—*Lepidoptera*: BENANDER, new to Sweden, 223; EKSTRÖM, Gotland, Sweden, 771; FILIPJEV, *Peronea* (Tortr.), E. Siberia, 863; HOFFMEYER, list of moths from Bornholm I., Denmark, 1251, 1252; JOHN, species new to Lettland, 1356; KOZHANTSCHIKOV, *Macrolepidoptera* of Minussinsk district, 1511; KURENTZOV, vertical distribution of *Lepidoptera* in Sikhota Alin Mts., 1540; MOLTRECHT, *Macrolepidoptera* from Ussuri and Amur districts, list, 1908.—*Diptera*: FREY, *Empidae* and *Dolichopodidae* new to Finland, 911; PLESKE, *Stratiomyidae*, *Erinnidae*, *Coenomyiidae*, *Oestridae* from Ussuri, 2233; STACKELBERG, *Dolichopoda* from E. Siberia, 2656.—

*Hemiptera*: JANSSON, *Heteroptera* of Oland, Gotland, Fårön, Gotska Sandön, 1332; KIRICHENKO, *Cryptocerata* from Ussuri, 1446; MOROVILKO, *Aphids* of Yakutz, 1916; SAMKO, *Tobolsk* district, list, 2453.—*Neuroptera*, *Trichoptera*: LACKSCHWITZ, *Esthonia*, list, 1569, 1570.—*Odonata*: ANDER, of Bornholm, Denmark, 59, Sweden, list, 61; BARTENEFF, Russian *Odonata*, 169.—*Dermoptera*: BEI-BIENKO, of Omsk, 208.—*Orthoptera*: ANDER, of Bornholm, Denmark, 58, Sweden, list, 60; BEI-BIENKO, *Orthoptera* of Omsk, 208, *Semipalatinsk*, 210.—*Protura*: TUXEN, Denmark, 2854.

## British Isles.

*Insecta*: Marine insects of Plymouth, 1; FOSTER, distribution of insects in Ireland, 900; HIGNETT, Severn valley, list, Rec. Bare Facts, Shrewsbury 40 pp. 16-32.—*Coleoptera*: BALFOUR-BROWNE, aquatic spp. of Isle of Wight, 127; BEARE, additions to catalogue of *Coleoptera* of Br. Isles, 191; BLAIR, Scilly Is., 291; DONISTHORPE, recent additions to British fauna, 696; EDMONDS, *Scopaeus* (Staph.), 747.—*Hymenoptera*: BENSON, *Athalia* (Tenth.), key, 236, 237; BUTTERFIELD & FORDHAM, *Aculeates* of Yorkshire, 445; HAINES, *Ichneumonidae* of Dorset and Hampshire, list, 1071; TUTTON, annotated list of *Hymenoptera* of Eton district, 2853.—*Lepidoptera*: ADKIN, moths of Eastbourne, list, 9; BOLAM, Northumberland and Eastern Borders, annotated list, 322; FASSNIDGE, additions to list from Hampshire and Isle of Wight, 845; FISHER, annotated list of *Lepidoptera* of Eton district, 872; TURNER, additions to Tutt's list of *Noctuidae*, 2852; WILD, local variations in the *Hebrides*, 3042.—*Diptera*: AUDCENT, *Diptera* of Bristol (cont.), 104; COLLIN, *Verrallia* (Pipunc.), 560; GOFFE, *Tabanidae*, 1003.—*Neuroptera*: HALLETT, Glamorgan, Trans. Cardiff Nat. Soc. 62 pp. 67-69.—*Hemiptera*: BUTLER & PALMER, Hertfordshire, 443; MARRINER, *Aleurodes* of Cumberland, 1767.—*Odonata*: NORTON, Glamorgan, Trans. Cardiff Nat. Soc. 62 pp. 73-75.—*Orthoptera*: HALLETT, Glamorgan, Trans. Cardiff Nat. Soc. 62 pp. 70-72.—*Collembola*: WOMERSLEY, Epping Forest, annotated list, Essex Nat. Stratford 23 pp. 116-120.

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*Coleoptera*: BARTHE, keys to French beetles (contd.), 175; BARTHE & TAREL, Cicindelidae, keys, 176; BONNAMOUR, Longicornia of Lyons district (part), 332; BOUGERIE, *Coleoptera* of dept. of Ardennes, list, 354; DU BUYSSON, Elateridae, keys, 450; FALCOZ, Clavicornia (part) of Lyons district, 831, Cryptophagidae, keys, 832; MAZETIER, Calvados, list, 1818; PORTEVIN, Polyphaga, 2249. — *Hymenoptera*: BENOIST, dept. of Ardennes, list, 233, *Osmia* (Apid.), 234. — *Lepidoptera*: D'ALDIN et al., Gironde, list, 14; CARVEL, dept. of Ardennes, list, 480. — *Diptera*: MERCIER, Phoridae, Calvados, list, 1850. — *Trichoptera*: MARTIN, 1778. — *Neuroptera*: MARTIN, 1778. — *Hemiptera*: BRUNETEAU, Normandy, 405; GOUX, *Eriococcus*, list, 1013; PÉNEAU, *Gerris*, *Acompus*, keys, 2146; POISSON, Normandy, list, 2237. — *Psocoptera*: BADONNEL, N. and N.E. France, list, 115; MARTIN, 1778. — *Plecoptera*: MARTIN, 1778. — *Ephemeroptera*: MARTIN, 1778. — *Odonata*: MARTIN, 1778.

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*Coleoptera*: BUCKING, first supplement to 2nd edn. of Heyden's "Die Käfer von Nassau und Frankfurt," 420; HAINMÜLLER, additions to *Coleoptera* of Mecklenburg, 1072; HEYROVSKÝ, Czechoslovakia, catalogue, 1205; JACOBS, Harz Mts., list, 1320; KARPÍŇSKI, Scolytids of Białowieża virgin forests, 1415; MARCU, of Bukovina, list, 1754–1756, spp. new to Bessarabia, 1757; MÜLLER, *Harpalus* (Carab.), revision, 1957; PEETZ, Staphylinioidea, Westphalian mountains, list, 2142; PLIGINSKY, Crimea, list, 2234; ROUBAL, Cicindelidae—Histeridae, of Czechoslovakia and Carpathians, catalogue, 2409; SEMENOV-TIAN-SHANSKII & MEDVEDEV, Russian Ochodaeina, revision, 2553; SPESIVTSEV, bark-beetles of European Russia except Crimea and Caucasus, key, 2649; SSAVTSHENKO, Scarabaeidae of Volhynia, 2654; TENENBAUM, spp. new to Poland, 2769; TRAPPEN, Württemberg, list, 2840; VAN DER WIEL, *Choleva* (Silph.), Holland, 3034. — *Hymenoptera*: HARTIG, *Pseumus*, Germany, key, 1102; SCHMIEDEKNECHT, *Anomaloni-nae*, Germany, 2491. — *Lepidoptera*: ALEXINSCHI, Macrolepidoptera of N.

Bessarabia, 35; AMSEL, Microlepidoptera of Mark Brandenburg, 54; BILOSOR, Podolia, 273; GUHN, *Zygaena*, Berlin district, 1047; HARTIG, Venezia Tridentina, additions, 1095, 1096, 1098, 1099; OSTHELDER, Geometridae (part), S. Bavaria, 2102; RAEBEL, Macrolepidoptera of Upper Silesia, 2293; SKALA, Austria-Hungary, additions, 2610; UFFELN, Microlepidoptera of Westphalia, list, 2865; VORBRÖDT, Canton Tessin and Misox Valley, Switzerland (cont.), 2940, 2941. — *Diptera*: BASTIN, Ephydriidae, Belgium, 178; BELANOVSKII, Tachinids from Kiev Govt., 216; GOETGHEBUER, Empidae, Belgium, 1002; KARL, Amrum I., Germany, 1406; SPEISER, Trypetidae, E. Prussia, list, Schr. phys.-oekon. Ges. Königsberg 67 1930 no. 1 pp. 95–99; SUSTER, Tachinidae of Dobruja, list, 2717, Anthomyiidae of Rumania, list, 2718. — *Hemiptera*: GROSS-HEIM, distribution of Heteroptera in Ukraine, 1042; HILLE RIS LAMBERS, Aphidae, Venezia tridentina, list, 1220, Aphidae, Netherlands, 1222; HORVATH, Lake Balaton, Hungary, 1279; KIRICHENKO, Coccidae of Ukraine and Crimea, 1448; MÜLLER, Heteroptera of Harz Region, 1958; SCHOLZ, bugs of Silesia, list, 2502; WERDER, Aphidae of Basle, 3007a. — *Thysanoptera*: GAVALOV, Stavropol district, 965; JOHN, Novgorod Govt., 1355. — *Ephemeroptera*: LESTAGE, Belgium (cont.), 1630. — *Odonata*: ARTOBOLEVSKII, Crimea, list, 98. — *Dermoptera*: STSCHERBAKOV, Crimea, 2708. — *Orthoptera*: BAIER, Fribourg, list, Bull. Soc. fribourg. Sci. nat. 30 pp. 125–127; NADIG, Graubünden, Switzerland, 1979; PREDTECHENSKII, Acrididae, Lower Volga, suppl., 2255; TARBINSKY, distribution of Orthoptera in Russia, 2751; ZEUNER, Tessin, Switzerland, 3108.

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*Insecta*: FOLEY, insects from Ahagar, Sahara, 892; GESTRO & VINCI-GUERRA, insects of Oasis of Giarubub, list, 979. — *Coleoptera*: ANDRES, Tenebrionidae, Egypt, catalogue, 64, Bostrychidae, Egypt, 65; ANTOINE, *Litorus* (Tenebr.), Morocco, 74; FUENTE Y MORALES, Spain and Balearic Is., additions, 928; GRIDELLI, *Cafius* (Staph.), key, 1029; HEYROVSKY, Cerambycidae, Bulgaria, 1207; KANTARDJIEVA-MINKOVA, Cleridae, Bulgaria, 1398; LUIGIONI, National Park,



Abruzzo, 1686; DE PEYERIMHOFF, Coleoptera of Hoggar, Sahara, 2161; PFEFFER, distribution of Scolytidae in Czechoslovakia, 2165; ROUBAL, *Euthia*, Czechoslovakia, 2417; SCHEERPELTZ, Staphylinidae, Ionian and Peloponnesian Is. (cont.), 214.—*Hymenoptera*: CEBALLOS, Cryptini, Spain, revision, 486; TAVARES, Cynipidae of Spanish Peninsula (cont.), 2759.—*Lepidoptera*: DIÓSZEGHY, Retezat, Carpathians, 682; DRENOWSKI, Alibotus Mts., Macedonia, additions, 723; FIORI, Macrolepidoptera of Rendena Valley, N. Italy, 868; GIEYSZTOR, Macrolepidoptera of Forest of Białowieża, Poland, 984; MARIANI, Sicily, additions, 1765; WATTISON, Portugal (cont.), 2988.—*Diptera*: ADLER & THEODOR, *Phlebotomus*, Mediterranean Basin, 11; GIL COLLADO, Syrphidae, Spain, monograph, 985.—*Hemiptera*: BALACHOWSKY, Coccidae, Corsica, 123; KNECHTEL, Coccidae, Rumania, 1477; DE LÉPINEY & MIMÉUR, Coccidae, Morocco, list, 1622; MENOZZI, Heteroptera, Venezia Tridentina, 1841.—*Orthoptera*: SALFI, Cyrenaica, 2443.

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*Insecta*: THOMAS et al., insects collected in Rub' al Khali, S. Arabia, 2798; BLAIR, Southern Arabia, 290; KIESERITZKY, Silphidae from Pamirs, 1435; LUTSCHNIK, Carabidae from Pamirs, 1689; MEDVEDEV, Scarabaeidae from Pamirs, 1820; REICHARDT, Histeridae, Tenebrionidae from Pamirs, 2333; REINIG, Tenebrionidae from Pamirs, 2341; ŽNOJKO, *Dyschirius* (Carab.) from Pamirs, 3118; ZUMPT, *Xylinophorus*, *Eutinopus* (Curc.), revision, 3126.—*Hymenoptera*: ALFKEN, Apidae from Pamirs, 41; BRULA, *Vespula*, distribution, 275; DOVNAI-ZAPOLSKIĖ, Tenthredinidae of N. Caucasica, 704; GUSSAKOVSKIĖ, Aculeate Hymenoptera from Pamirs, 1058; HEDICKE, *Anthophora* (Apid.) from Pamirs, 1144; MALLACH, Tenthredinidae from Pamirs, 1726; REINIG, Apidae from Pamirs, 2340; ROMAN, Pimplinae, Tryphoninae (Ich.) from Kamchatka, 2393.—*Lepidoptera*: GERASIMOV, Microheterocera of Kashka-Darja, S.E. Bokhara, 976; OSTHELDER & PFEIFFER, Marasch, Turkish N. Syria, 2103; REBEL, S. Arabia, list, 2322, 2323.—*Diptera*: ACHUNDOW, Culicidae, Azerbaijan, 5; BECKER et al., S. Arabia, list, 194; KALANDADZE, mosquitos of Georgia,

1386; KHODUKIN & SOFIEV, *Phlebotomus*, Central Asia, revision, 1434.—*Trichoptera*: MARTYNOV, Pamirs, 1788.—*Hemiptera*: GAVAILOV, Coccidae, Caucasus, 964; KIRICHENKO, aquatic Heteroptera from N.W. Persia and Caucasus, 1444.—*Thysanoptera*: JOHN, from Minussinsk, 1354.—*Odonata*: BARTENEV, W. Caucasica, list, 168.—*Orthoptera*: KRAUSS, new spp. from S. Arabia, 1514, 1515; TARBINSKY, *Ramburiella* (Acrid.), Asiatic spp., 2752.

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*Insecta*: HANCOCK & SOUNDY, list of insects from Bugishu, Mt. Elgon, 1079.—*Coleoptera*: BERNHAUER, Staphylinidae from Abyssinia, 252, *Glypesthus* (Staphyl.), key, 254; BRYANT, *Spondylia* (Megalop.), key, 409; BURGEON, Callichromini, Belgian Congo, list, 430, Prionidae, Belgian Congo, 433; HINCKS, *Erionomus* (Passal.), 1224; KREKICH-STRASSOLD, new Anthicidae, Abyssinia, 1516; LABOISSIÈRE, Galerucini from Mozambique, 1565, Galerucini from Angola, 1566; LIEBKE, *Colliuris* (Carab.), 1638; OBENBERGER, *Meliboetus* (Buprest.), distribution, 2067; OMER-COOPER, Dytiscidae, Abyssinia, 2086; PEARCE, Halipilidae, Abyssinia, 2140.—*Hymenoptera*: ARNOLD, Sphegidae, S. Africa (cont.), 92; COMPERE, *Diversinervus* (Encyrt.), revision, 564, *Baeoanusia* (Encyrt.), 566; FAHRINGER, Braconinae (part), revision, 829; WILKINSON, *Spathius* (Brac.), revision, 3047.—*Lepidoptera*: COLLENETTE, Lymantriidae from Brit. Somaliland, 552; PROUT, Geometridae, catalogue, 2272, Geometridae from Br. Somaliland, 2273; REBEL, Sokotra I., list, 2322, 2323; SAYERS, butterflies of Tanganyika Terr., list, 2466; VAN SOMEREN & ROGERS, butterflies of Kenya and Uganda, IX, 2912.—*Diptera*: BECKER et al., Diptera from Sokotra I., 194; CURBAN, *Diasemopsis* (Diops.), key, 610; GALLIARD, Culicidae of Gabun, 951; KRÖBER, Conopidae, S. Africa, revision, 1521, Theravidae, S. Africa, revision, 1522; SEGUY, *Scenopinus*, key, 2544; THEODOR, *Phlebotomus*, key, 2783.—*Neuroptera*: BARNARD, Sialidae, Cape Province, 154; ESBEN-PETERSEN, Anglo-Egyptian Sudan, 807.—*Hemiptera*: SCHOUTEDEN, Reduviidae, Belgian Congo, catalogue, 2505.—*Thysanoptera*: PRIESNER, *Haplothrips*, revision, 2265.—*Psoco-*



*ptera*: BADONNEL, new spp. from Mozambique, 114.—*Odonata*: LONGFIELD, list of British Somaliland spp., 1657; RIS, new spp. from S. Angola, 2373.—*Orthoptera*: KRAUSS, new spp. from Sokotra I., 1514, 1515; REHN, new Tetriginæ, 2331.—*Thysanura*: SILVESTRI, Japygidae from S. Africa, 2589.

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*Coleoptera*: BOUCOMONT, *Aulocnemis crassecostata* var. n., 351.—*Lepidoptera*: COLLENETTE, *Redoa* sp. n. (Lymantr.), 554.

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*Coleoptera*: BOUCOMONT, *Aulonocnemis*, revision, 351; HEINZE, *Bradylema* sp. n. (Criocer.), 1151; HOSCHECK, new Buprestidae, 1280; KNIBSCH, *Rhadinotaena* sp. n. (Ceton.), Sbornik ent. odd. Nár. Mus. Praha 8 1930; LABOISSIÈRE, *Alaotra* sp. n. (Galeruc.), 1564; OBENBERGER, new Buprestidae, 2060, 2066; PIC, new spp., 2176, 2177, 2190, 2192, 2194; SPAETH, *Hoplionota* (Cassid.), 2646.—*Hymenoptera*: SCHULTHESS, *Icaria* sp. n. (Vesp.), 2509.—*Lepidoptera*: COLLENETTE, new Lymantriidae, 554; MEYRICK, new Tineidae, 1862; PROUT, *Aphilopota*, *Negloides*, spp. n. (Geom.), 2275; ROTHSCHILD, *Phryganopteryx* sp. n. (Arct.), Novit. zool., Tring 37.—*Diptera*: LENGERSDORF, *Rhynchomegalosphys* sp. n. (Mycetoph.), 1612; SÉGUY, *Macroptylum* sp. n. (Ceratop.), 2544.—*Trichoptera*: ULMER, *Dipseudopsis* sp. n., 2877.—*Hemiptera*: JENSEN-HAARUP, *Triplatys* sp. n., 1345.—*Ephemeroptera*: NAVÁS, *Cloeon* sp. n., 1997.—*Dermoptera*: BORELLI, *Isopyge* sp. n., 337.—*Orthoptera*: KARNY, *Gryllacris* sp. n., 1407.

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*Coleoptera*: MAULIK, new Chrysomelidae, 1817; SPAETH, *Hoplionota* spp. (Cassid.), 2646.—*Hymenoptera*: WILKINSON, *Spathius* sp. n. (Brac.), 3047.—*Diptera*: HERMITTE, *Anopheles gambiae* (Culic.) in Aldabra I., 1190.—*Psocoptera*: ENDERLEIN, 793.

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*Hymenoptera*: WILKINSON, *Spathius* (Bracon.), revision, 3047.—*Lepidoptera*: GAEDE, Cymatophoridae, catalogue, 943; HERING, Limacodidae, catalogue, 1183.—*Diptera*: FELT, Asiatic Cecidomyiidae, catalogue, 846.

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*Insecta*: New species of insects from Japan described during 1930, 2; ESAKI, fauna of the Bonin Is., 802; SOWERBY, insects of Manchuria, list, 2643.—*Coleoptera*: ANDREWES, Carabidae, catalogue, 66; ARROW, Copridae, India, Burma, Ceylon, 94; BOUCOMONT, Copridae of China, list, 352, 353; CAMERON, Staphylinidae, II, India, Burma, Ceylon, 455; CHO, Lucanidae from Korea, J. Chosen Nat. Hist. Soc. 12 pp. 56-60 1 pl.; FLEUTIAUX, Elateridae from Fr. Indo-China, 882, 888; HOFFMANN, Copridae from Hainan I., 1248; HOEN, Cicindelinae, China, catalogue, 1276, Cicindelinae from Hainan, 1277; KANO, Paussidae, Formosa, 1389, Brenthidae, Japan, 1390, Col. of Bonin Is., 1391, Col. of Botel-Tobago I., 1392, 1393, Formosa, new Cetoniids, 1395; KLEINE, Lycidae, India, catalogue, 1456, Brenthidae, Lycidae, China, 1461; KÔNO, *Notoxus* (Anthic.), Japan, 1503; KREKICH-STRASSOLD, Anthicidae from India, 1517; MIWA, catalogue of Formosan *Coleoptera*, 1900, Elateridae V, Formosa, 1901, Elateridae, Loo-Choo Is., suppl., 1902, Lucanidae, Japanese Empire, I, 1903, *Glyphonyx* (Elat.) Formosa, key, 1904; MURAYAMA, Ipidae and Platypidae of Quelpart I. (Korea), 1968, Scolytidae, Platypidae, Korea, revision, 1970, 1971; OBENBERGER, *Trachys* (Buprest.) revision (part), 2056; OCHS, Chinese Gyrinidae, 2072; TAKIZAWA, Halipidae, Japan, 2744, Gyrinidae, Japan, 2745; YOSHIDA, Formosan Prioninae, 3097; ZUMPT, *Xylinophorus*, *Eutinopus* (Curc.), revision, 3126.—*Hymenoptera*: BLÜTHGEN, *Halictus* and *Thrincostruma* (Apid.), revision, suppl., 306; COCKERELL, new Philippine Bombidae, 533; MONZEN, Japanese Cynipidae, 1915; TAKEUCHI, Pamphiliidae, Japan, revision, 2741; TERANISHI, ants of Palaearctic Japan, I, 2779; UCHIDA, Cryptinae (Ichn.), Formosa, 2860; WATANABE, *Helcon* (Brac.), Japan, key, 2985.—*Lepidoptera*: ARAKAWA, butterflies of S. Manchuria, list, Zephytus, Fukuoka 3 pp. 29-40, 1 pl.; CARADJA, Microlepidoptera from China, 464; DOI, Rhopalocera from Mount Shouyou, Korea, 693; FLETCHER, Pterophoridae, India, catalogue, 877, Phalonitidae and Chlidanotidae (Tortric.), India, 878; GODFREY, butterflies of Siam, list, 994, butterflies from Kaw Tao I., Gulf of

Siam, 995; MATSUMURA, Limacodidae, Japan, list, 1805, Aegeriidae, Japan, list, 1807; SHIBUYA, Endotrichinae (Pyrall.), Japan, 2571; YATES, butterflies of Coorg, 3093.—*Diptera*: BARAUD & CHRISTOPHERS, mosquitos from Siam, 166; CHRISTOPHERS, SINTON & COVELL, Indian *Anopheles*, list, 513, 589; CURRAN, Syrphidae from Malay Peninsula, 619; HO, Culicidae of Peiping, China, 1229; KITAKAMI, Blepharoceridae, Japan, revision, 1451; SCHUURMANS STEKHOVEN, Pupipara, Tabanidae, of China, 2518.—*Hemiptera*: ESAKI, Heteroptera from Botel-Tobago I., Formosa, 803; FUNKHOUSER, Membracidae of China, 937; KANDA, Coccidae of Yokohama, list, 1388; KATO, Cicadidae of Japanese Emp., 1417, Hemiptera from Botel-Tobago I., Formosa, 1418; KUWANA, Coccidae of Amamioshima I., Loochoo Is., 1545, *Aclerda*, Japan, 1547, *Phenacaspis*, Japan, VI, 1548, *Kermes*, Japan, 1549; KUWAYAMA, Psyllidae of Formosa, 1552; MATSUMURA, Cercopinae, Japan, monograph, 1801, Typhlocybrids, list of spp., Japan, Formosa, 1809; MORI, Cicadidae of Korea, 1921; NAKAYAMA, Coccidae of Korea, 1933; SINGH, Aleurodidae, India, revision, 2599; TAKAHASHI, Aphidae of Formosa, VI, 2735.—*Thysanoptera*: ISHIDA, Japan, 1311.—*Isoptera*: LIGHT, China, 1642; PENDLEBURY, Malaya, list, 2145; SNYDER, China and Indo-China, list, 2635.—*Odonata*: CHÔJÔ, Coenagrioninae from Formosa, 516; FRASER, Indian dragonflies (cont.), 909; LAIDLAW, Malay Peninsula, list, 1574; NEEDHAM, Hainan, 2005, China, additions, 2006.—*Dermoptera*: BORELLI, S. India, list, 338.—*Orthoptera*: FURUKAWA, Bonin Is., list, 938; HSÛ, Gryllidae from China coast, 1285; KARNY, Gryllacridae, China, 1409; SHIRAKI, Blattidae of Japanese Empire, 2577.

#### Asiatic Archipelago.

*Insecta*: PENDLEBURY, insects of Mangalum I., N.W. Borneo, 2143, 2144; VAN DER MEER MOHR, fauna of Pulau Berhala, 2906.—*Coleoptera*: ANDREWES, Carabidae, catalogue, 66, Carabidae of Mt. Kinabalu, Borneo, 68, new Carabidae, Sumatra, 70, 71; ARROW, *Peltonotus* spp. n. (Rutel.), Borneo, Philippines, 96; BOURGOIN, *Astraea* spp. n. (Ceton.), Philippines, 355; CHAPIN, *Adoretus* (Rutel.), Philippines, revision, 488, new Melolonthids, 489; CORFORAL,

Cleridae, Sumatra, list, 575; FLEUTIAUX, *Arhipis* spp. n. (Eucnem.), Sunda Is., 885, *Galbimorpha* sp. n. (Eucnem.), Borneo, 889; HEBERDEY, new Anthicidae, Sunda Is., 1138; HORN, *Cicindela* sp. n., Celebes, 1273, Cicindelidae from Mt. Kinabalu, 1274; JORDAN, new Anthribidae, Java, 1374; KLEINE, Brentidae, Philippines, 1462, *Calodromus* sp. n. (Brenth.), Sumatra, 1463, *Lyropaeus* (Lycid.), key, 1464, Lycidae, Java, 1465, new Lycidae, Sumatra, Bali, 1466; MAULIK, *Dactylispa* sp. n. (Hisp.) Java, 1816; OCHS, Gyrididae, Sunda Is., list, 2071; OHAUS, *Anomala* spp. n. (Rutel.), Celebes, Sumatra, 2076; SCIEDL, *Xyleborus* spp. n. (Scolyt.), Java, 2474, *Scolyto-platypus* sp. n., Java, Ent. Bl. 27 p. 118; SCHLEICHER, Histeridae from Sunda Is., 2484; SCHWARZER, new Cerambycidae, 2525; THÉRY, new Buprestidae, 2786; UHMANN, *Botryonopa* sp. n. (Hisp.), Borneo, 2871, new Hispididae, Sumatra, 2872, 2876, new Hispididae, Philippines, 2873, 2875; WENDELER, *Paederus* spp. n. (Staph.), 3007.—*Hymenoptera*: BLÜTHGEN, *Halictus*, *Thrincostoma* (Apid.), revision, suppl., 306; DODD, *Oxyscelio* (Proct.), Java and Philippines, 691; FERRIERE, new Chalcidoidea, Java, 854; STÄRCKE, ants of Palau Berhala, 2665.—*Lepidoptera*: COLLENETTE, new Lymantriidae, Celebes, Java, 555; VAN EECCKE, *Voracia* sp. n. (Lasioc.), Java, 758; HERING, new Limacodidae, 1183; MEYRICK, new Microlepidoptera, 1862; MOULTON, new Lycaenidae, J. Straits Asiat. Soc. 60 1911 pp. 80–168; PROUT, Geometridae from Mentawai, 2276; WEST, new Philippine Pyralidae, 3014.—*Diptera*: ALDRICH, *Milichiella* sp. n., Philippines, 19; ALEXANDER, Tipulidae of Sunda Is., 25, new Tipulidae, Philippines, 32; BRUG, Culicidae of Sunda Is., list, 398; BRUG & EDWARDS, Culicidae from Sumatra, 401; CURRAN, new spp., Java, 612, new Syrphidae, Borneo, 620; DUDA, Chloropidae and Drosophilidae from Sunda Is., 728; EDWARDS, Nematocera from N. Borneo, 753, Mycetophilidae, Bibionidae, Scatopsidae, Anisopodidae, from Sumatra, 756; ENGEL, new Empidids, Java, 795; FALCOZ, *Raymondia* sp. n. (Strebl.), Java, 833; MALLOCH, new Acalyptrates, Philippines, Java, 1730, 1733; MANALANG, *Phlebotomus* spp. n. (Psych.) Philippines, 1742; MARTINI, *Dixa* spp. from Sunda Is., 1781; SACK, Syrphidae

(Dipt.) from Sunda Is., 2438; SCHMITZ, new Phoridae, Java, 2496; STACKELBERG, new Javan Dolichopodidae, 2658; VAN DUZEE, *Argyra* sp. n. (Dolichop.), Java, 2911; VILLENEUVE, *Limnophora* sp. n. (Anthom.), Java, 2930.—*Siphonaptera*: JORDAN, new spp., Java, 1366, 1372, 1377.—*Trichoptera*: BANKS, new spp., Kinabalu, Borneo, 141.—*Neuroptera*: BANKS, new spp., Philippines, Borneo, 143.—*Hemiptera*: BLÖTE, Pyrrhocoridae from Neth. E. Indies, 299; HILLE RIS LAMBERS, *Astegopteryx* new spp. (Aphid.), Sumatra, 1221; JENSEN-HAARUP, new Pentatomids, 1345, 1346; LALLEMAND, *Cosmoscarta* spp. n. (Cercop.), Celebes, 1579, new Cercopidae, Philippines, Borneo, 1580; MUIR, *Neommatissus* sp. n. (Tropiduch.), Philippines, 1940; SCHMIDT, *Gynopygoplas* sp. n. (Cercop.), Philippines, Ent. Rdsch. 48 p. 64.—*Thysanoptera*: PRIESNER, *Haplothrips* sp. n., Sumatra, 2270.—*Psocoptera*: BANKS, new spp., Philippines, 143.—*Odonata*: LAIDLAW, Mangalum I., N.W. Borneo, 1573, Borneo, list, 1575; LIEFTINCK, Nias I., 1640.—*Orthoptera*: BOLIVAR Y PELTAIN, *Uvarovia* (Acrid.), revision, 325, *Rosacris* sp. n. (Acrid.), Philippines, Arch. zool. 15 p. 30; CHOPARD, Achetidae, Gryllotalpidae, Celebes, 503; HANITSCH, new Blattidae, Christmas I., 1080; KARNY, Tettigoniidae, Celebes, 1413, Gryllacridae, Celebes, 1414; SJÖSTEDT, *Valanga* spp. n. (Acrid.), 2605; WILLEMSE, Tetriginæ from Sunda Is., 3048, Acrididae of Mangalum I., N.W. Borneo, 3049, Acrididae of Celebes, 3054.

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##### ARU Is.

*Coleoptera*: LEA, new Baridinae (Curc.), 1595.—*Orthoptera*: KARNY, *Gryllacris* sp. n., 1407.

##### BISMARCK ARCHIPELAGO.

*Coleoptera*: VAN ZWALUWENBURG, Elateridae from New Britain, 3129.—*Lepidoptera*: HERING, *Hydroclada* sp. n., New Britain, 1183; MEYRICK, new Tortricidae, 1862; PROUT, *Craspedosis* sp. n. (Geom.), New Ireland, 2275.

##### KEY Is.

LEA, *Gymnobaris* sp. n. (Curc.), 1595. NEW GUINEA.

*Coleoptera*: BENICK, *Stenus* sp. n. (Staph.), 230; CAMEKON, new Staphy-

linidae, 456; DEANE, new Trichopterygidae, 648; FLEUTIAUX, new Eucnemidae, 889; HOSCHECK, new Buprestidae, 1280; KLEINE, new Brentidae, 1457; LEA, new spp., 1595-1597; LESNE, *Minthea* sp. n. (Bostr.), 1623; NAGEL, *Cyclommatus* sp. n. (Lucan.), 1981; SCHWARZER, *Hoplocerambyx* sp. n., *Tmesisternus* sp. n. (Longic.), 2525; THÉRY, new Buprestidae, 2786, 2787; VAN ZWALUWENBURG, new Elateridae, 3129.—*Lepidoptera*: CLARK, *Panacra* sp. n. (Sphing.), 518; GAEDE, new Cymatophoridae, 943; HERING, *Thosea* sp. n. (Limacod.), 1183; JANSE, new Pyralidae, 1331; MEYRICK, new Tineidae, 1862; PROUT, new Geometridae, 2275, 2277; RÖBER, *Amblypodia* sp. n. (Lycaen.), 2375.—*Diptera*: ALEXANDER, *Trentepohlia* sp. n. (Tipul.), 24; BONNE-WEPSTER, *Taeniorhynchus* sp. n. (Culic.), 334; BRUG, *Anopheles* sp. n., 399; MALLOCH, *Plagiostenopterina* sp. n. (Ortal.), 1733; SOESILO & VAN SLOOTEN, *Bironella* sp. n. (Culic.), 2637.—*Hemiptera*: BLÖTE, *Dindymus* sp. n. (Pyrrhoc.), 299; FUNKHOUSER, *Emphusis*, *Eufairmairia* spp. n. (Membr.), 936; MUIR, *Pseudoparicana* sp. n. (Tropid.), 1945; SCHMIDT, *Varciella* sp. n. (Rican.), 2490.—*Orthoptera*: BOLIVAR Y PELTAIN, new Acrididae, 323, 324; HANITSCH, *Stilopyga* sp. n. (Blatt.), 1080; SJÖSTEDT, *Valanga* sp. n. (Acrid.), 2605.

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*Coleoptera*: UHMANN, *Xiphispa* sp. n. (Hisp.), 2871.—*Lepidoptera*: HERING, *Limacontia* sp. n. (Limacod.), 1183; MEYRICK, new Tineidae, 1862.—*Neuroptera*: NAVÁS, *Brisus* sp. n., 1999.—*Hemiptera*: FUNKHOUSER, *Otinotoides* sp. n. (Membr.), 936; MUIR, new Homoptera, 1945.—*Orthoptera*: GÜNTHER, new Phasmid, 1045a; SJÖSTEDT, *Valanga* sp. n. (Acrid.), 2605; WILLEMSE, new Acrididae, 3051.

##### TENIMBER I.

*Coleoptera*: DIDIER, *Figulus* spp. n. (Lucanid.), 678.

##### Australia and Tasmania.

*Coleoptera*: CARTER, *Stigmodera* spp. n. (Buprest.), 477, Aust. Zool. 6 p. 386, Cistelidae, corrigenda to check list, 478; CLARK, *Atractocerus* sp. n. (Lymex.), 519; DEANE, new Trichopterygidae, 648, new Hydrophilidae, 649; ELSTON, new Elateridae, 773;

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#### America, collectively.

*Coleoptera*: LUEDERWALDT, Pinodidae, key, 1683.—*Lepidoptera*: BOX, *Diatraea*, *Xanthophorus* (Pyl.), revision, 361; BROWN, *Aphrissa* (Pierid.), revision, 389; DRAUDET, Sphingidae, 718.—*Odonata*: RIS, *Perithemis*, revision, 2372.

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*Coleoptera*: BLACKMAN, *Pseudopityophthorus* (Scolyt.), revision, 286, *Gnathotrichus* (Scolyt.), revision, 287; BLACKWELDER, Sphaeridiinae (Hydroph.), of Pacific Coast, 288; BLAKE, *Trirhabda* (Chrysom.), revision, 296; BROWN, Aegialiinae, revision, 392; BUCHANAN, *Perigaster* (Curc.), revision, 417; CARRUTH, Meloidae, S. Dakota, 476; DOB[R]ZHANSKY, *Coccinella*, revision, 690; FALL, *Atelabus* (Curc.), key, 837, *Hymenorus*

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*Coleoptera*: NEVERMANN, *Telephanus* (Cucuj.), revision, 2018.—*Hymenoptera*: CUSHMAN, *Polycyrtus* (Ichn.), key, 627; WHEELER, *Xenomymarx* (Form.), revision, 3024.—*Hemiptera*: MELIN, *Phymata*, revision, 1823.—*Orthoptera*: VIGNON, some genera of Pseudophyllinae, 2928.

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*Trichillum* (Copr.), key, 95; BARATINI, *Cicindelinae*, Uruguay, 149; HORN, *Cicindelidae*, Bolivia, list, 1278; LUEDERWALDT, *Passalidae* of Brazil, monograph, 1681, *Ontherus* (Copr.), Brazil, 1883, *Bolboceras* (Geotrup.), 1685; PORTER, *Chenoderus* (Cerambyc.), revision, 2248.—*Hymenoptera*: ALFKEN, *Corynura* (Apid.), Chile, key, 43; CAMPOS, *Pepsis* (Pompil.), Ecuador, 457; LIEBERMANN, *Spheex*, Argentina, revision, 1635.—*Lepidoptera*: BREYER, *Castniidae*, Argentina, 376; HAYWARD, *Nymphalidae*, Argentina, revision, 1131; KÖHLER, *Hylesia*, Argentina, 1490, *Psychidae*, Argentina, 1491; MEYRICK, *Pterophoridae*, *Tortricidae*, *Tineidae*, from Bolivian Chaco, 1864; ORFILA, *Eurota* (Syntom.), Argentina, 2094, catalogue of *Lepidoptera* of Argentina, additions, 2095; PROUT, *Geometridae* from Bolivian Chaco, 2274; ZERNY, *Syntomidae*, Pará, Brazil, 3104.—*Diptera*: BORGMEIER, *Myrmosciarius* (Phorid.), key, 339; CAMPOS, mosquitos, Guayaquil, 458; COLLIN, *Platypozidae* and *Pipunculidae* of Patagonia and S. Chile, 556; DA COSTA LIMA, *Sabethoides*, *Sabethes* (Culic.), revision, 582, *Megarhinus* (Culic.), Brazil, 584; CRESSON, *Ephydriidae*, Patagonia and S. Chile, 594; EDWARDS, *Simuliidae*, S. Chile and Patagonia, 749, *Bibionidae*, *Mycetophilidae* from Bolivian Chaco, 754; ENDERLEIN, *Pantophthalmidae*, key, 790; ENGEL, *Anthomyiidae*, *Muscidae* and *Sarcophagidae* from Bolivian Chaco, 796; INGRAM & MACFIE, *Ceratopogonidae*, Patagonia and S. Chile, 1305; KRÖBER, *Pelecorhynchinae*, *Melpinae* (Taban.), 1524; MARTINI, *Culicidae* from Bolivian Chaco, 1784; PARAMONOW, *Lyophlaeba* (Bombyl.), key, 2115; RICHARDS, *Borboridae*, Patagonia and S. Chile, 2357; SCHMITZ, *Phoridae* (suppl.), Patagonia and S. Chile, 2494; SHANNON, mosquitos of Middle Coast States, Brazil, 2561, Argentine *Culicidae*, list, 2563; VAN DUZEE, *Chrysotus* (Dolichop.), key, 2908, *Thrypticus* (Dolichop.), key, 2910.—*Siphonaptera*: JORDAN, fleas from Ecuador, 1376.—*Plecoptera*: SÁMAL, *Diamphipnoa*, revision, 2452.—*Ephemeroptera*: LESTAGE, Chile, 1629.—*Odonata*: CALVERT, *Palaemnema*, revision, 454.—*Orthoptera*: HEBARD, spp. from Bolivian Chaco, 1135.—*Collembola*: DENIS, Costa Rica, 671.



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*Baris scolopacea* biology pp. 103-105 fig., STRELTZOV Plant Prot. 7.—*B. gibbicollis* p. 139, *porosterna* p. 140, *trichocnemis* p. 141 Aru I., *punctivaria* p. 140, *atropolita* p. 141, *obscuripes* p. 145, *castaneicornis* p. 146, *tenuipes* p. 147, *vigilans* p. 148, *mesosternalis* p. 149, *laevissima* p. 150, *inusitata*, *stictoptera* p. 151, *liosoma* p. 141, *cordipennis* p. 143, *tenuicornis*, *edentata*, *parvidentipes* p. 144, *antennalis* p. 145, *megalops*, *punctimedia* p. 146, *convergens*, *semipunctata* p. 148, *simplicipennis*, *biabivittata* p. 150, *bimaculibasis*, *eurysterna* p. 152 New Guinea, *foveata* Queensland, *monobia* Torres Straits p. 147, *multinaculata* Malay Penin. p. 152, *memorhina*, *basipennis*, *vitiensis* Fiji p. 153, spp. n. figs., LEA Proc. Linn. Soc. N.S.W. 66.

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*vulgaris*, Ivory Coast, Belgian Congo  
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*Austeniella* n. n. for *Austenia* Ramme nec Nevill (Gasteropoda) p. 934, RAMME Mitt. zool. Mus. Berl. 16.

*Austracris guttulosa* subsp. n. *talawensis* Palawan p. 25, SJÖSTEDT Ark. Zool. 23A no. 4.

*Batrachotetrix tectinota* p. 586, *turneri* p. 587, *nana* p. 589, *braini* p. 590, *hemiptera* p. 591, spp. n. Cape Province figs., UVAROV Ann. Mag. N.H. (10) 8.

*Bennia* BURR (= *Ebneridia* Bol.) p. 555, *bonzo* BURR (= *luteofasciata* Bol.) p. 556; *birmanica* sp. n. Burma p. 557 figs., BOLIVAR Y PIELTAIN Bol. Soc. esp. Hist. nat. 31.—*B. burri* see *Burrinia*.

*Bibracte* key p. 294, *marginata* sp. n. Malacca p. 293 figs., WILLEMSE Ent. Anz. 11.—*B. malagassa* see *Serpusilla*.

*Biroella* key p. 315, *aruensis* sp. n. ARU I. p. 334; *bolivari* subsp. n. *schultzei* New Guinea p. 342 figs., BOLIVAR Y PIELTAIN Trab. Mus. nac. Madrid Ser. Zool. 46 1930.

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*Bocagella curvula* sp. n. Fr. Congo p. 26 fig., SJÖSTEDT Ark. Zool. 22A no. 15.

*Bryodema* monograph pp. 71–127, restriction p. 72, key to allied gen. p. 73, systematic position, distribution p. 74, key to spp. and subspp. p. 80, *holdereri* subsp. n. *occidentale* Minussinsk p. 87; *diamsum* E. Tibet p. 94, *zaisanicum* Zaisan p. 95, *fallax* p. 97, *kozlovi* p. 101 Mongolia, *heptapotamicum* Heptapotamia p. 103, *uvarovi* N.W. China p. 112 spp. n.; *semenovi* subsp. n. *orientale* p. 101; *miramae* subsp. n. *elegantulum* p. 111 Mongolia; *indum* Sauss. a subsp. not synonym of *luctuosum* Stoll p. 115 figs., BEL-BIENKO Annu. Mus. zool. Acad. Leningrad 31 1930.—*B. barabense*, *rhodopa* see *Anagracris*.

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*Burrinia* gen. n. for *Bennia burri* Bol. p. 146 (type) and *Erianthus humbertianus* Sauss. p. 150 figs., BOLIVAR Y PIELTAIN Trab. Mus. nac. Madrid Ser. Zool. 46 1930.

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*Calamacris mexicana* Brun. (= *oculata* Brun.) p. 123, HEBARD Trans. Amer. Ent. Soc. 57.

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*Callichloracris* n. n. for *Chloracris* Karsch nec Pict. (Tettigonid) p. 934, RAMME-Mitt. zool. Mus. Berl. 16.

*Calliptamus bimaculatus* p. 4, *pachypus* p. 5, spp. n. Sokotra I., KRAUSS Anz. Akad. Wiss. Wien 7 1902.

*Caloptenopsis congoensis* p. 54, *corallipes*, *brazzavillei* p. 57 spp. n. Fr. Congo; *angusticosta* Karsch, *speciosa* Sjöst. distinct spp. p. 56, SJÖSTEDT Ark. Zool. 22A no. 15.—*C. violaceipennis* see *Acorypha gilli*.

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*Cardenius magnificus* ♂ p. 939, RAMME Mitt. zool. Mus. Berl. 16.

*Catantops notatus* Karsch (= *minimus* Karsch) p. 30; *interveniens* p. 31, *zigzag* p. 47, *coerulescens* p. 49 Fr. Congo, *pulcher* p. 39, *dubiosus* p. 47 Tanganyika, *somalicus* p. 40, *allesandricus* p. 51 Somaliland, *loveni* p. 48, *kilimensis* p. 49 E. Africa, *omboensis* Usambara p. 50 spp. n.; *madimbanus* p. 42; (*Viticatantops* subgen. n. p. 43) figs., SJÖSTEDT Ark. Zool. 22A no. 15.—*C. versicolor* sp. n. Sokotra I. p. 4, KRAUSS Anz. Akad. Wiss. Wien 7 1902.—*C. vittatus* see *Pnorisa squalus*; *sulcifer* see *Eupropacris*; *graueri* see *Parapropacris*; *viridulus* see *P. vana*.

*Celebomastax* gen. n. p. 203, *curiosa* sp. n. Celebes p. 204 fig., WILLEMSE Treubia 12 suppl.; See *Eupatrides*.

*Cephalocoema magna* G. T. (= *gigantea* G. T.) p. 268, HEBARD Konowia 10.

*Ceracris hoffmanni* sp. n. S. China p. 217, UVAROV Lingnan Sci. J. 10.

*Chescirtypus* subgen. n. see *Orchetypus*.

*Chloracris* see *Callichloracris*.

*Chorotypus* key p. 28, *saussurei* Perak p. 32, *servillei* p. 35, *ameliae* p. 41 Borneo, spp. n. figs., BOLIVAR Y PIELTAIN Trab. Mus. nac. Madrid Ser. Zool. 46 1930.

*Chorthippus* spp. postembryonic development of specific differences pp. 241–272 figs., SPETT Arch. EntwMech. Org. 124.—*C. nudus* p. 89, *plotnikovi* p. 91, *ferghanensis* p. 93, *antennalis* p. 95 Uzbekistan, *monilicornis* p. 98, *pascuus* p. 99 Kirghistan, spp. n., UMNÖV Ent. NachrBl. 5.—*C. geophilus* sp. n. p. 196 (with subsp. n. *divergens*

p. 198); *kozhevníkovi* subsp. n. *arenosus* p. 199 Siberia figs., BEĬ-BIENKO Izv. W. Siberian Sect. Russ. Geogr. Soc. 7 1930.

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*Desmoptera insularis* sp. n. Queensland p. 3 fig., SJÖSTEDT Ark. Zool. 22A no. 7.

*Dialeptia stenströmi* sp. n. Fr. Congo p. 10 fig., SJÖSTEDT op. cit. no. 15.

*Dibastica modesta* ♂ p. 22, SJÖSTEDT t.c.

*Dichroplus forcipatus* sp. n. Argentina p. 337 fig., REHN Trans. Amer. Ent. Soc. 44 1918.

*Diedronotus centralis* sp. n. Costa Rica p. 329 fig., REHN t.c.

*Dixis chivensis* Khiva p. 193, *ferghanensis* Ferghana p. 198 spp. n., key p. 203, UMNÖV Wien. ent. Ztg. 47.

*Dinotettix africanus* Bol. from Mazarredia p. 127 figs., REHN Proc. Acad. Nat. Sci. Philad. 82.

*Dracotettix newboldi* sp. n. U.S.A. p. 125 figs., HEBARD Trans. Amer. Ent. Soc. 57.

*Duroniella brachyptera* sp. n. Tadshikistan p. 132, UMNÖV Wien. ent. Ztg. 48.

*Ebneridia* gen. n. p. 94, *luteofasciata* sp. n. Tenasserim p. 96 figs., BOLIVAR Y PIELTAIN Trab. Mus. nac. Madrid Ser. Zool. 46 1930; see *Bennia*.

*Epallia exigua* sp. n. Queensland p. 8, SJÖSTEDT Ark. Zool. 22A no. 7.

*Erianthus formosanus* sp. n. Formosa p. 83, SHIRAKI Acrid. Japans, Tokyo 1910.—*E. key* p. 101, *bakeri* sp. n. Luzon p. 109; *versicolor* var. n. *fruhstorferi* Siam p. 128 figs., BOLIVAR Y PIELTAIN Trab. Mus. nac. Madrid Ser. Zool. 46 1930.—*E. humbertianus* see *Burrinia*.

*Erucius* key p. 218, *Curieus* subgen. n. type *tenuis* Brun. p. 214; *fruhstorferi* Java p. 220, *staudingeri* p. 230, *labuanensis* p. 234, *stali* p. 239, *willemsei* p. 251 (with var. n. *chaperi* p. 254) Borneo, *moultoni* p. 237, *dusmeti* p. 255 Sarawak spp. n.; *dimidiatipes* varr. n. *luteipes* Penang p. 261, *zonatus* Sumatra p. 262 figs., BOLIVAR Y PIELTAIN Trab. Mus. nac. Madrid Ser. Zool. 46 1930.

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*Eucerohippus cunctator* subsp. n. *flabellatus* E. Africa p. 944; *phyllocerus* Ramme from *Lindia* p. 945 fig., RAMME Mitt. zool. Mus. Berl. 16.

*Euchorthippus angustulus* sp. n. Balearic Is. p. 191 fig., RAMME op. cit. 17.

*Eucoptacra parvula* sp. n. E. Africa p. 934 fig., RAMME op. cit. 16.

*Eumastax boliviana* sp. n. Bolivia p. 264 fig., HEBARD Konowia 10.

*Euophistes variegatus* ♀ p. 4, SJÖSTEDT Ark. Zool. 22A no. 7.

*Eupatrides* Brun. (= *Celebomastax* Will.), key p. 484, *lobatus* sp. n. Johore p. 485 fig., BOLIVAR Y PIELTAIN Bol. Soc. esp. Hist. nat. 31.

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*Eupropacris sulcifer* Karny from *Catantops* p. 42, SJÖSTEDT Ark. Zool. 22A no. 15.

*Eurotettix schrottkyi* sp. n. Paraguay p. 341 figs., REHN Trans. Amer. Ent. Soc. 44 1918.

*Eurynotacris* gen. n. p. 935, *somalica* sp. n. Somaliland p. 937 fig., RAMME Mitt. zool. Mus. Berl. 16.

*Filchnerella beicki* sp. n. Kansu p. 446 figs., RAMME op. cit. 17.

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*Genurelli* gen. n. p. 4, *cylindrica* sp. n. New South Wales p. 6 fig., SJÖSTEDT Ark. Zool. 22A no. 7.

*Gomphocerus* revision of Palaearctic spp. pp. 129-139 figs., TARBINSKY Bull. Inst. Contr. Pests Dis. 1.

*Gomphomastax* key p. 291, *clavata* subsp. n. *plotnikovi* Turkestan p. 298; *disparilis* sp. n. Kashmir p. 300 figs., BOLIVAR Y PIELTAIN Trab. Mus. nac. Madrid Ser. Zool. 46 1930.—*G. constrictus*, *avinovi* see *Paedomastax*.

*Heliastus parviceps* Wlk. (= *Thrincus aridus* Brun.) p. 120, HEBARD Trans. Amer. Ent. Soc. 57.

*Hemiacris azurea* sp. n. Fr. Congo p. 20 fig., SJÖSTEDT Ark. Zool. 22A no. 15.

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*Lagoonia* gen. n. p. 8, *scabronotum* sp. n. N. Australia p. 10 fig., SJÖSTEDT op. cit. no. 7.

*Lamellitettix mampua* sp. n. Sierra Leone p. 123 figs., REHN Proc. Acad. Nat. Sci. Philad. 82.

*Leiotettix mendosensis* sp. n. Argentina p. 335 figs., REHN Trans. Amer. Ent. Soc. 44 1918.

*Lindia phyllocera* see *Eucerohippus*.

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*Lozilobus bantu* sp. n. Sierra Leone p. 113 figs., REHN Proc. Acad. Nat. Sci. Philad. 82.

*Machaeridia congonica* p. 6, *fragilis* p. 7, spp. n. Congo, SJÖSTEDT Ark. Zool. 22A no. 15.

*Mastacides* key p. 267, *ramachendrai* p. 271, *gracilipes* p. 274, *stuartensis* p. 276, *fletcheri* p. 281, *crassipes* p. 285, spp. n. India figs., BOLIVAR Y PIELTAIN Trab. Mus. nac. Madrid Ser. Zool. 46 1930.

*Mazarredia africana* see *Dinotettix*.

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*Mizonocara kusnetzovae* sp. n. Uzbekistan p. 134, UMNOW Wien. ent. Ztg. 48.

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*Morphopoides* gen. n. p. 120, *coriaceum* sp. n. Sierra Leone p. 121 figs., REHN Proc. Acad. Nat. Sci. Philad. 82.

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*Oedipoda akitana* p. 40, *japonica* p. 39, *rufipes* p. 37, spp. n. Formosa, SHIRAKI Acrid. Japans, Tokyo 1910.—*O. fuscocincta* subsp. n. *portugulensis* Portugal p. 193, RAMME Mitt. zool. Mus. Berl. 17.

*Ogmothela* good genus, scope p. 923, key, *fallax* Karny p. 928, *brevipennis* Mill. from *Zacompsa*; *gracilis* sp. n. Tanganyika p. 929; *meruensis* Sjöst. from *Pseudochirista*; *rimulata* Karsch

from *Zacompsa* p. 930 fig., RAMME op. cit. 16.—*O. rammei* sp. n. Meru p. 61, key p. 62, SJÖSTEDT Ark. Zool. 22A no. 15.

*Ommexecha macroptera* Blanch. (= *giglio-tosi* Bol.) p. 271, HEBARD Konowia 10.

*Orchetypus* (*Chescirtypus* subgen. n.) *martinezi* Kamerun p. 67, *parki* Nigeria p. 68, *assiniensis* Ivory Coast p. 70, spp. n. figs., BOLIVAR Y PIETAIN Trab. Mus. nac. Madrid Ser. Zool. 46 1930.

*Oxya* Chinese spp. p. 436, *agavisa* p. 437 (with f. n. *robusta*), *rammei* p. 439, spp. n. China figs., TSAI Mitt. zool. Mus. Berl. 17.—*O. annulicornis* p. 57, *yezoensis* p. 56, spp. n. Formosa, SHIRAKI Acrid. Japans, Tokyo 1910.

*Oxyrrhepes celebesia* sp. n. Celebes p. 234 fig., WILLEMSE Treubia 12 suppl.

*Paedomastax* gen. n. for *Gomphomastax constrictus* Brun. and *G. avinovi* Uv. p. 303 figs., BOLIVAR Y PIETAIN Trab. Mus. nac. Madrid Ser. Zool. 46 1930.

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*Paracranaë* gen. n. p. 234, *celebesia* sp. n. Celebes p. 235 figs., WILLEMSE Treubia 12 suppl.

*Paralobopoma* Rehn (= *Sagonacris* Ramme) p. 918, *sjöstedti* sp. n. Tanganyika p. 920 fig., RAMME Mitt. zool. Mus. Berl. 16.

*Parapleurus koshunensis* sp. n. Formosa p. 14, SHIRAKI Acrid. Japans, Tokyo 1910.

*Parapropacris vana* Karsch (= *Catanotops viridulus* Karny); *graueri* Sjöst. from *Catanotops* p. 939, RAMME Mitt. zool. Mus. Berl. 16.

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*Peakesia fuscomaculata* (with var. n. *striata* p. 8) sp. n. Australia p. 6 fig., SJÖSTEDT op. cit. no. 7.

*Pedies brunneri* see *Neopedies*; *nigri-gena* see *Pseudoscopas*; *bipunctatus* see *Propedies*; *aberrans* see *Apacris*.

*Phlaeoba abbreviata* sp. n. Celebes p. 212 fig., WILLEMSE Treubia 12 suppl.



*Phyllochoreia* key p. 9, *westwoodi* sp. n. India p. 20 fig., BOLIVAR & PIETAIN Trab. Mus. nac. Madrid Ser. Zool. 46 1930.

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*Platypterna* revision of Palaearctic spp. pp. 255-347, key p. 266, *filicornis* subsp. n. *judaica* Palestine p. 279, *orientalis* Persia p. 280; *geniculata* Bol. (= *pruinosa agedabiae* Salfi) p. 293; *johnstoni* Sudan p. 281, *ladakiae* Syria p. 300, *nilotica* Egypt p. 311, *sicula* Sicily p. 316, *variopicta* p. 311, *persica* p. 320, *obtusa* p. 324, *affinis* p. 326 Persia, *aethiopica* Abyssinia p. 328, *warawi* Armenia, Persia, Mesopotamia p. 342 spp. n. figs., SALT Eos 7.

*Pnorisa squalus* Stål (= *Catantops vittatus* Kby.) p. 42, SJÖSTEDT Ark. Zool. 22A no. 15.

*Podisma formosana* p. 77, *kawakamii* p. 74, *kodamae* p. 72, *rosaceanum* p. 75, *sapporense* p. 76 (with var. n. *longipenne* p. 77), spp. n. Formosa, SHIRAKI Acrid. Japans, Tokyo 1910.—*P. sapporense* ovo-testis in larva pp. 1-5 figs., NATORI Trans. Sapporo N.H. Soc. 12.—*P. schmidtii* subsp. n. *rubripes* Rumania; *alpina* f. n. *leisleri* Carinthia p. 197, RAMME Mitt. zool. Mus. Berl. 17.—*P. morii* sp. n. Korea p. 676 figs., BEFBIENKO Bol. Soc. esp. Hist. nat. 31.

*Podismopsis relicta* sp. n. N. Albania p. 124 figs., RAMME Zool. Anz. 93.—*P. gelida* sp. n. Murmansk p. 40 figs., MIRAM Zool. Anz. 97.

*Poecilocerus socotranus* see *Physemophorus*.

*Propedies* gen. n. for *Pedies bipunctatus* G. T. p. 275, HEBARD Konowia 10.

*Prumna polaris* ♀ p. 45 figs., MIRAM Zool. Anz. 97.

*Pseudochrista* good genus, scope p. 923, key p. 924, *longicornis*, *houyi* Kamerun spp. n. p. 927 figs., RAMME Mitt. zool. Mus. Berl. 16.—*P. temporalis* subsp. n. *fasciata* Fr. Congo p. 15 fig., SJÖSTEDT Ark. Zool. 22A no. 15.—*P. meruensis* see *Ogmothela*.

*Pseudomitriaria lunda* sp. n. Angola p. 134 figs., REHN Proc. Acad. Nat. Sci. Philad. 82.

*Pseudoscopas* gen. n. for *Pedies nigrigena* Rehn p. 275, HEBARD Konowia 10.

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*Dactylolabis* (*Idiolabis* subgen. n.) p. 59, *terebrella*, *vetusta* p. 60, spp. n. Baltic amber figs., ALEXANDER Bernsteinforsch. 2.

*Dicranoptycha electrina* sp. n. Baltic amber figs. p. 40, ALEXANDER t.c.

*Electrolabis* gen. n., *extincta* sp. n. Baltic amber p. 58 figs., ALEXANDER t.c.

*Electrogonomyia* subgen. n. see *Gonomyia*.

*Electrotipula* subgen. n. see *Tipula*.

*Elephantomyia baltica* sp. n. Baltic amber p. 88 fig., ALEXANDER t.c.

*Eriocera plastica* sp. n. Baltic amber p. 86, ALEXANDER t.c.

*Erioptera arcuata* p. 105, *platyphylla* p. 107, *duplicata* p. 108, *diacantha* p. 109, *axillaris*, *subabortiva* p. 110, *rectistyla* p. 111, spp. n. Baltic amber figs., ALEXANDER t.c.

*Gnophomyia inferna, parvicellula* spp. n. Baltic amber p. 122 figs., ALEXANDER t.c.

*Gonomyia* (*Electrogonomyia* subgen. n.) *pinetorum* p. 118, (*Gonomyia*) *oligocenica* p. 119 spp. n. Baltic amber figs., ALEXANDER t.c.

*Hexatoma minuta* sp. n. Baltic amber p. 84 fig., ALEXANDER t.c.

*Idiolabis* subgen. n. see *Dactylolabis*.

*Limnophila servilis* p. 72, *samlantica* p. 73, *skwarrae* p. 74, spp. n. Baltic amber figs., ALEXANDER t.c.—*L. concinna maculata* see *Pseudolimnophila loewiella*.

*Ormosia skwarrae* p. 100, *electrella* p. 101, *tornquisti, beurleni* p. 102, spp. n. Baltic amber figs., ALEXANDER t.c.

*Palaepocecilostola longicornis* subsp. n. *parallela* Baltic amber p. 48 fig., ALEXANDER t.c.

*Phyllolabis andréi* sp. n. Baltic amber p. 52 figs., ALEXANDER t.c.

*Pilaria batheri* p. 81, *baltica* p. 82, spp. n. Baltic amber figs., ALEXANDER t.c.

*Pseudolimnophila loewiella* n. n. for *Limnophila concinna maculata* Meun. nec Mg., Macq. p. 63; *timida* p. 65, *pinicola* p. 67, *inculpata* p. 68, *ambigua* p. 70, spp. n. Baltic amber figs., ALEXANDER t.c.

*Rhabdomastix klebsi* p. 113, *brevis* p. 117, spp. n. Baltic amber figs., ALEXANDER t.c.

*Tanymera* gen. n. p. 75, *fritschii* (type), *terminans* p. 78, *arguta* p. 76, *berendti* p. 79, spp. n. Baltic amber figs., ALEXANDER t.c.

*Thaumastoptera electra* sp. n. Baltic amber p. 41 figs., ALEXANDER t.c.

*Tipula* (*Electrotipula* subgen. n.) p. 21, *pinetorum* p. 22, *submedia, digitifera* p. 26, *phoracantha, presliana* p. 27, *spinistyla, falco* p. 30, *handlirschiana, scudleriana* p. 32, *meunieri* p. 36, *flagellata* p. 38, spp. n. Baltic amber figs., ALEXANDER t.c.

*Trentepohlia dampffiana* sp. n. Baltic Amber p. 123, ALEXANDER t.c.

*Trichoneura gracilistylus* sp. n. Baltic amber p. 57 figs., ALEXANDER t.c.

*Tricryphona succinea, sepulchralis* p. 94, *electrina* p. 95, spp. n. Baltic amber figs., ALEXANDER t.c.

#### SYRPHIDAE.

*Chilosia scudderi* sp. n. Eocene Colorado p. 357 figs., COCKERELL & LE VEQUE Amer. Nat. 65.

*Syrphopsis* gen. n., *globosiceps* sp. n. Böttingen, Swabia p. 316 figs., ZEUNER Fortschr. Geol. Paläont. 9.

#### Hemiptera.

Hemiptera of lower Permian, Kansas, CARPENTER Amer. J. Sci. (5) 22 pp. 113–123, 5 figs.

*Archeglyphis* gen. n. (*Prosbolidae*), *crassinervis* sp. n. Kuznetsk Basin p. 89 fig., MARTYNOV Bull. Geol. Prosp. Serv. Moscow 49 1930 no. 10.

*Cicadopsyllinae* subfam. n. (*Permopsyllidae*) Permian, Russia p. 172, MARTYNOV Trav. Mus. géol. Acad. Sci. U.S.S.R. 8.

*Cicadopsylla* gen. n. (*Permopsyllidae*), *permiana* sp. n. Permian, Russia p. 173 figs., MARTYNOV t.c.

*Latahcoris* gen. n. (*Pentatomidae*), *spectatus* sp. n. Miocene (Latah), Washington p. 312 fig., COCKERELL Ann. Ent. Soc. Amer. 24.

*Paleoscytina* gen. n. (*Archescytinidae*), *brevistigma* sp. n. lower Permian, Kansas p. 118 fig., CARPENTER Amer. J. Sci. (5) 22.

*Pereboria* gen. n. (*Prosbolidae*), *bella* sp. n. Permian, Petchora Basin p. 1021 figs., ZALESSKY Bull. Acad. Leningrad 1930.

*Permopsylla* (*Archescytinidae*) *permiana* p. 120, *minuta* p. 121 spp. n. lower Permian, Kansas figs., CARPENTER Amer. J. Sci. (5) 22.

*Prosbola tchirkovaeana* sp. n. Permian, Kama Basin p. 1018 figs., ZALESSKY Bull. Acad. Leningrad 1930.

*Protoliarus* (*Fulgoridae*) *amabilis* sp. n. Eocene Colorado p. 355 figs., COCKERELL & LE VEQUE Amer. Nat. 65.

*Scytinoptera signata* sp. n. Permian, Russia p. 172 fig., MARTYNOV Trav. Mus. géol. Acad. Sci. U.S.S.R. 8.

*Sojanoneura* (Prosbolidae) *marginata* sp. n. Permian, Russia p. 167 figs., MARTYNOV t.c.

## Isoptera.

Phylogeny of termite wings, PONGRÁČZ Pub. Muz. jud. Hunedoara 25-26 1928 pp. 122-123, 1 chart.

*Stylotermes washingtonensis* sp. n. Miocene (Latah), Washington p. 317 fig., SNYDER Ann. Ent. Soc. Amer. 24.

*Termopsis transsylvanica* p. 114, *mallászi* p. 118, spp. n. Siebenbürgen figs., PONGRÁČZ Pub. Muz. jud. Hunedoara 25-26 1928.

## Palaeodictyoptera.

Palaeodictyoptera of lower Permian, Kansas, CARPENTER Amer. J. Sci. (5) 21 pp. 97-99.

Additions to Palaeodictyoptera of lower Permian, Kansas, CARPENTER Amer. J. Sci. (5) 22 pp. 123-126, 2 figs.

*Anthracosta duboisi* sp. n. Belgium p. 147 figs., PRUVOST Mem. Mus. Hist. nat. Belg. 44 1930.

*Cleffia* gen. n. (Dictyoneuridae), *sarana* sp. n. Saar p. 91 figs., GUTHÖRL Centrallbl. Min. Geol. Paläont., Stuttgart 2 (B).

*Neuburgia* gen. n. (Spilapteridae) p. 74, *altaica* sp. n. Kuznetsk Basin p. 75 fig., MARTYNOV Bull. Geol. Prosp. Serv. Moscow 49 1930 no. 10.

Permoneuridae fam. n. p. 124, CARPENTER Amer. J. Sci. (5) 22.

*Permoneura* gen. n. (Permoneuridae), *lameerei* sp. n. lower Permian, Kansas p. 124 fig., CARPENTER t.c.

*Sabitaptus lagaei* sp. n. Belgium p. 149 figs., PRUVOST Mem. Mus. Hist. nat. Belg. 44 1930.

*Severinula* gen. n. (Cryptoveniidae), *leopoldi* sp. n. Belgium p. 151 figs., PRUVOST t.c.

## Odonata and Protodonata.

Protodonata and Odonata of lower Permian, Kansas, with studies on phylogeny, CARPENTER Amer. J. Sci. (5) 21 pp. 99-139, 6 figs.

*Miocordulia* gen. n. (Libellulidae, Cordulinae) p. 313, *latipennis* sp. n. Miocene (Latah), Washington p. 314 figs., KENNEDY Ann. Ent. Soc. Amer. 24.

*Oligotypus* gen. n. (Meganeuridae), *tillyardi* sp. n. lower Permian, Kansas p. 106 figs., CARPENTER Amer. J. Sci. (5) 21.

Permaeschnidae fam. n. p. 141, MARTYNOV Bull. Acad. Leningrad 1931 no. 1.

*Permaeschna* gen. n. p. 141, *dolloi* (type) p. 143, *proxima* p. 145 spp. n. Permian, Archangelsk figs., MARTYNOV t.c.

Permanisoptera sub. order n. n. for Protanisoptera Martyn. (March) nec Carpent. (Feb.) p. 246, MARTYNOV C.R. Acad. Sci. U.R.S.S. (A) 1931.

*Progoneura* gen. n. (Kennedyidae), *minuta* sp. n. lower Permian, Kansas p. 119, CARPENTER Amer. J. Sci. (5) 21.

Protanisoptera subord. n. p. 122, CARPENTER t.c.

Protanisoptera subord. n. (nr. Anisoptera) p. 146, MARTYNOV Bull. Acad. Leningrad 1931 no. 1; see Permanisoptera.

*Sushkinia* gen. n. (Kennedyidae) p. 71, (type) *parvula* p. 72, *elongata* p. 73 spp. n. Permian, Russia figs., MARTYNOV Trav. Mus. géol. Acad. Sci. U.S.S.R. 6 1930.

*Tillyardiella* gen. n. (Protagriidae), *distincta* sp. n. Permian, Russia p. 76 fig., MARTYNOV t.c.

## Orthoptera and Protorthoptera.

Notes on R. Shelford's "The British Museum Collection of Blattidae enclosed in Amber" in J. Linn. Soc. Lond. Zool. 32 1911 pp. 59-69, ANDRÉE Cbl. Min. Geol. Paläont., Stuttgart (B) 6 1931 pp. 316-317.

Cacurgidae Handl. (Protoblattoidea) includes Omaliidae Handl. p. 157, PRUVOST Mem. Mus. Hist. nat. Belg. 44 1930.

Systematic and nomenclatorial notes on Miomoptera, MARTYNOV Bull. Acad. Leningrad 1930 pp. 960-975, 1126-1134 figs.

*Atactophlebiidae* fam. n. (near Lemmatophoridae) Permian, Kama Basin p. 952, MARTYNOV Bull. Acad. Leningrad 1930.

*Atactophlebia termitoides* redescribed p. 953, MARTYNOV t.c.

*Camptoneura* see *Camptoneurites*.

*Camptoneurites* n. n. for *Camptoneura* Mart. praecoc. p. 961, MARTYNOV t.c.

*Camptoneuritidae* n. n. for *Camptoneuridae* p. 98, MARTYNOV Bull. Geol. Prosp. Serv. Moscow 49 1930 no. 10; also p. 961 Bull. Acad. Leningrad 1930.

*Coselia* see *Omalia*.

*Delopsocus* see *Pseudomantis*.

*Euthygramma* (Protorthoptera) *curvatum* sp. n. Permian, Russia p. 163 fig., MARTYNOV Trav. Mus. géol. Acad. Sci. U.S.S.R. 8.

*Gryllotalpa* (Gryllidae) *miocaenica* sp. n. Böttingen, Swabia p. 260 figs., ZEUNER Fortschr. Geol. Paläont. 9.

*Kazanella* gen. n. (Lemmatophoridae), *rotundipennis* (type) p. 1116, *compressa* p. 1117 spp. n. Permian, Kama Basin figs., MARTYNOV Bull. Acad. Leningrad 1930.

*Leptoneurula* see *Pseudomantis*.

*Mantis boettingensis* sp. n. Böttingen, Swabia p. 285 figs., ZEUNER Fortschr. Geol. Paläont. 9.

*Metoedischia* (Oedischidae) *kamensis* sp. n. Permian, Russia p. 159 fig., MARTYNOV Trav. Mus. géol. Acad. Sci. U.S.S.R. 8.

*Miocaenacris* gen. n. (Acrididae), *soergeli* sp. n. Böttingen, Swabia p. 275 figs., ZEUNER Fortschr. Geol. Paläont. 9.

*Miomatoneura parvula* sp. n. Permian, Kama Basin p. 1125 figs., MARTYNOV Bull. Acad. Leningrad 1930.

*Narkemina* gen. n. (Narkemidae), *angustata* sp. n. Kuznetsk Basin p. 81 fig., MARTYNOV Bull. Geol. Prosp. Serv. Moscow 49 1930 no. 10.

*Oiratia* gen. n. (Prodnisidae), *valida* sp. n. Kuznetsk Basin p. 86 figs., MARTYNOV t.c.

*Olethrobatta* (Archimylacridae) *minuta* sp. n. Saar p. 138 figs., GUTHÖRL Verh. naturh. Ver. preuss. Rheinl. 86 1930.

*Omalia* Van Bened. and Coemans (= *Palaeomastax* Handl., *Coselia* Bolt.) p. 157, PRUVOST Mem. Mus. Hist. nat. Belg. 44 1930.

Omalidae see Cacurgidae.

*Pachytylopsis* (Protorthoptera) *dorlodoti* p. 154, *stainieri* p. 155, spp. n. Belgium figs., PRUVOST t.c.

*Palaeomastax* see *Omalia*.

*Parethoblatta* (Blattariae) *straeleni* sp. n. Belgium p. 161 figs., PRUVOST t.c.

*Permacridites* gen. n. (Stenaropodidae) p. 156, *maximus* sp. n. Permian, Russia fig., MARTYNOV Trav. Mus. géol. Acad. Sci. U.S.S.R. 8.

*Phylloblatta* (Archimylacridae) *regularis* sp. n. Kuznetsk Basin p. 77 figs., MARTYNOV Bull. Geol. Prosp. Serv. Moscow 49 1930 no. 10.—*P. oliveirai* sp. n. Permian, Brazil p. 1 fig., CARPENTER Bol. Serv. geol. min. Brazil, Rio de Janeiro 50 1930.—*P. girardi* sp. n. carboniferous S.W. France p. 251 figs., PENEAU Bull. Soc. géol. Fr., Paris (4) 30 1930.—*P. latiuscula* p. 150, *tartarica* p. 152 spp. n. Permian, Russia figs., MARTYNOV Trav. Mus. géol. Acad. Sci. U.S.S.R. 8.

*Pinegia* (Oedischidae) *fenestrata* sp. n. Permian, Russia p. 161 fig., MARTYNOV t.c.

*Protocatantops* gen. n. (Acrididae), *gracilis* (type) p. 262, *miocaenicus* p. 270 spp. n. Böttingen, Swabia figs., ZEUNER Fortschr. Geol. Paläont. 9.

*Pseudomantis* Mart. (= *Leptoneurula* Mart., *Delopsocus* Tilly.) p. 1122, *furcatula* sp. n. Permian, Kama Basin p. 1124 figs., MARTYNOV Bull. Acad. Leningrad 1930.

*Rammea* gen. n. (Tettigoniidae), *laticeps* sp. n. Böttingen, Swabia p. 253 figs., ZEUNER Fortschr. Geol. Paläont. 9.

Rammeinae subfam. n. (Tettigoniidae) p. 259, ZEUNER t.c.

*Sindon* (Oryctoblattinidae) *rossicum* sp. n. Permian, Russia p. 154 fig., MARTYNOV Trav. Mus. géol. Acad. Sci. U.S.S.R. 8.

*Tomioiblatta* gen. n. (Archimylacridae), *furcatella* sp. n. Kuznetsk Basin fig., MARTYNOV Bull. Geol. Prosp. Serv. Moscow 49 1930 no. 10.

*Ungoneurites* gen. n. (? Camptoneuritidae), *paucinervis* sp. n. Kuznetsk Basin p. 84 figs., MARTYNOV t.c.

### Megasecoptera.

*Palaeopalara* Handl. (= *Anthraco-palara* Handl.) p. 164, PRUVOST Mem. Mus. Hist. nat. Belg. 44 1930.

*Kuloja* from Megasecoptera to Synsecoptera p. 84, MARTYNOV Trav. Mus. géol. Acad. Sci. U.S.S.R. 6 1930.

### Protelytroptera.

Protelytroptera ord. n. p. 234, relationship with other orders discussed pp. 255-265, TILLYARD Amer. J. Sci. (5) 21.

Acosmelytridae fam. n. p. 252, TILLYARD t.c.

*Acosmelytron* gen. n. (Acosmelytridae), *elongatum* (type) p. 253, *acutum*, *delicatum* p. 254 spp. n. lower Permian, Kansas figs., TILLYARD t.c.

Blattelytridae fam. n. p. 249, TILLYARD t.c.

*Blattelytron* gen. n. (Blattelytridae) *permianum* sp. n. lower Permian, Kansas p. 250 figs., TILLYARD t.c.

*Megelytron* gen. n. (Protelytridae), *robustum* sp. n. lower Permian, Kansas p. 247 figs., TILLYARD t.c.

*Parablattelytron* gen. n. (Blattelytridae), *subincisum* (type) p. 251, *rectum* p. 252 spp. n. lower Permian, Kansas figs., TILLYARD t.c.

Permelytridae fam. n. p. 246, TILLYARD t.c.

*Permelytron* gen. n. (Permelytridae) p. 246, *schucherti* sp. n. lower Permian, Kansas p. 247 fig., TILLYARD t.c.

Protelytridae fam. n. p. 235, TILLYARD t.c.

*Protelytron* gen. n. (Protelytridae) p. 239, *permianum* (type) p. 240, *dunbari* p. 242 spp. n. lower Permian, Kansas figs., TILLYARD t.c.

*Protelytropis* gen. n. (Protelytridae), *grandis* sp. n. lower Permian, Kansas p. 245 fig., TILLYARD t.c.

### ERRATA.

Vol. xlvii, 1910, p. 390, transfer *Nesochrysa geayi* to *Nothochrysa*.

Vol. lv, 1918, p. 194, transfer *Micrasema* to Trichoptera.

Vol. lix, 1922, p. 358, transfer *Leptocella* to Trichoptera.

Vol. lx, 1923, pp. 268, 269, transfer *Hydropsyche*, *Limnophilus* and *Stenophylax* to Trichoptera, and *Taeniopteryx* to Plecoptera.

Vol. lxi, 1924, p. 303, 2nd col., 10 lines from end, before "nana" insert "Capnia"

Vol. lxii, 1925, p. 294, 2nd col., line 1, before "GRIBODO" insert "BLÜTHGEN in"

Vol. lxiii, 1926, p. 304, transfer *Salagena* to Metarbelidae.

Vol. lxiii, 1926, p. 342, 2nd col., line 16, insert "p. 66"

Vol. lxiii, 1926, p. 344, transfer *Parooderella* to EUPELMIDAE.

Vol. lxiii, 1926, p. 405, for "Stenopomia" read "Stenoponia"

Vol. lxiii, 1926, p. 411, transfer *Phanostoma* to Trichoptera.

Vol. lxiii, 1926, p. 457, for "Neanis" read "Neanias"

Vol. lxiv, 1927, p. 27, no. 515, for "44" read "14"

Vol. lxiv, 1927, p. 195, 1st col., transfer "Arthrobrachys" to DASYTIDAE.

Vol. lxiv, 1927, p. 249, 2nd col., for "Theolusia" read "Thelosia" and transfer to BOMBYCIDAE.

Vol. lxiv, 1927, p. 297, transfer *Phaenoserphus* to PROCTOTRUPIDAE.

Vol. lxiv, 1927, p. 363, 2nd col., line 1, for "Eustelia" read "Euestelia"

Vol. lxxv, 1928, p. 91, no. 2008, and p. 270, 2nd col., 7 lines from end, for "14" read "44" and for "15" read "45"



- Vol. lxxv, 1928, p. 423, 2nd col., line 10, for "*dicranocena*" read "*dicranocenca*"
- Vol. lxxv, 1928, p. 427, 2nd col., transfer *Campodea* to Thysanura.
- Vol. lxxvi, 1929, p. 170, transfer *Mülleriella* to SILPHIDAE.
- Vol. lxxvi, 1929, p. 185, 2nd col., line 36, for "*y-maculata*" read "*7-maculata*"
- Vol. lxxvi, 1929, p. 189, 2nd col., transfer *Laikomorphus* to CLERIDAE.
- Vol. lxxvi, 1929, p. 239, 2nd col., line 18, for "p. 20" read "p. 21"
- Vol. lxxvi, 1929, p. 240, 1st col., line 9, for "*plutonis*" read "*plutonius*"
- Vol. lxxvi, 1929, p. 240, 2nd col., line 29, for "Japan" read "Formosa"
- Vol. lxxvi, 1929, p. 242, 1st col., line 10, for "p. 228" read "p. 229"
- Vol. lxxvi, 1929, p. 242, 1st col., line 22, for "*flavescens*" read "*fluvescens*"
- Vol. lxxvi, 1929, p. 244, 1st col., line 26, for "*carpentana*" read "*carpetana*"
- Vol. lxxvi, 1929, p. 244, 1st col., line 47, for "p. 122" read "p. 222"
- Vol. lxxvi, 1929, p. 247, 1st col., 4 lines from end, for "p. 306" read "p. 396"
- Vol. lxxvi, 1929, p. 248, 1st col., 12 lines from end, for "*aemon*" read "*acmon*"
- Vol. lxxvi, 1929, p. 248, 2nd col., 3 lines from end, for "Japan" read "Formosa"
- Vol. lxxvi, 1929, p. 249, 1st col., line 40, for "♀" read "♂"
- Vol. lxxvi, 1929, p. 251, transfer *Leucothyris* to DANAIIDAE.
- Vol. lxxvi, 1929, p. 253, 1st col., line 4, "*insigniamiscens*" sp. n., not r. n., of *alveus*.
- Vol. lxxvi, 1929, p. 253, 1st col., line 21, for "Japan" read "Formosa"
- Vol. lxxvi, 1929, p. 253, 1st col., line 26, after "*infrauratu*" insert Italy and line 27, for "Italy" read "Catalonia"
- Vol. lxxvi, 1929, p. 260, 2nd col., line 21, for "*Pechipogon*" read "*Pechipogo*" and line 23, after "1912" insert "pt. 2"
- Vol. lxxvi, 1929, p. 261, 2nd col., line 24, for "*Semasia*" read "*Sesamia*"
- Vol. lxxvi, 1929, p. 287, transfer *Mnesarchaea* to MICROPTERYGIDAE.
- Vol. lxxvi, 1929, p. 300, transfer *Cleptes* to CHRYSIDIDAE.
- Vol. lxxvi, 1929, p. 316, transfer *Chelonus* to BRACONIDAE.
- Vol. lxxvii, 1930, p. 60, no. 1265, for "6" read "27"
- Vol. lxxvii, 1930, p. 76, no. 1620, & p. 149, 2nd col., line 15, for "Lindiger" read "Lindinger"
- Vol. lxxvii, 1930, p. 123, no. 2724, for "*Naterl. vaturk.*" read "*vaterl. Naturk.*"
- Vol. lxxvii, 1930, p. 142, 2nd col., line 15, for "*Rhizochilus*" read "*Phizoschilus*"
- Vol. lxxvii, 1930, p. 170, 2nd col., delete *Cnecostolus* subgen. n. etc.
- Vol. lxxvii, 1930, p. 193, 2nd col., transfer *Falsophaeopterus* and *Mimophaeopterus* to LYCIDAE.
- Vol. lxxvii, 1930, p. 241, 1st col., line 13, for "*secundae*" read "*secunda*"
- Vol. lxxvii, 1930, p. 242, 1st col., 12 lines from end, for "p. 159" read "p. 158"
- Vol. lxxvii, 1930, p. 246, 1st col., line 11, delete "nom. nud."
- Vol. lxxvii, 1930, p. 246, 2nd col., 6 lines from end, for "S. Russia" read "Ala-Tau"
- Vol. lxxvii, 1930, p. 252, transfer *Lepidomys* and *Musotima* to PYRALIDAE.
- Vol. lxxvii, 1930, p. 260, for "*Eucrostis*" read "*Eucrostes*"
- Vol. lxxvii, 1930, p. 277, for "*Helonoles*" read "*Helonodes*"
- Vol. lxxvii, 1930, p. 306, 2nd col., for "*Aglaostoma*" read "*Aglaotoma*"
- Vol. lxxvii, 1930, p. 317, 2nd line, for "*Atlophorus*" read "*Athlophorus*"

Vol. lxvii, 1930, p. 332, transfer *Paracladura* to TRICHO CERIDAE.

Vol. lxvii, 1930, p. 335, 1st col., line 1, for "*griseocolilis*" read "*griseicollis*"

Vol. lxvii, 1930, p. 338, 2nd col., for "*Philopoa*" read "*Philopota*"

Vol. lxvii, 1930, p. 343, for "*Gymnopterus*" read "*Gymnopternus*"

Vol. lxvii, 1930, p. 345, for "*Callostigma*" read "*Calostigma*"

Vol. lxvii, 1930, p. 346, transfer *Condyllostylus* to DOLICHOPODIDAE.

Vol. lxvii, 1930, p. 356, for "*Pediasomyia*" read "*Pediasiomysia*"

Vol. lxvii, 1930, p. 359, 1st col., line 6, for "**36**" read "**38**"

Vol. lxvii, 1930, p. 360, 1st col., lines 41, 50 & 52 for "*Amoebalaria*" read "*Amoebalaria*"

Vol. lxvii, 1930, p. 392, 2nd col., for "*Melinzoderes*" read "*Melizoderes*"

Vol. lxvii, 1930, p. 396, 2nd col., after "*Cecidotrioza*" insert "(gen. n. Kieff. 1909 non descr.)"

Vol. lxvii, 1930, p. 412, line 7, delete "?" and line 8 for "[Author in Japanese]" read "TAKAHASHI"

Vol. lxvii, 1930, p. 428, for "*Pararcomacris*" read "*Paracomacris*"

Vol. lxvii, 1930, p. 432, 1st col., line 11, for "in 44 pp." read "p. 6"

Vol. lxvii, 1930, p. 432, 2nd col., line 29, for "**9**" read "**88**"

XII. PROTOCHORDATA

INCLUDING

ENTEROPNEUSTA AND PTEROBRANCHIA

BY

M. BURTON, M.Sc.

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1.—**André-Thomas, J.** Réactions de deux Invertébrés: *Ascidia mentula* Müll. et *Nereis diversicolor* O. F. M., à l'inoculation de substances à propriétés cancérigènes. C.R. Soc. Biol. Paris **108** 32 1931 pp. 667-669.

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M. BURTON, M.Sc.

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**Nearctic.**—Canada; CRITCHELL-BULLOCK, 146: DYMOND, 169: KOELZ, 376: U.S.A.; COKER, 141: EVERMANN & CLARK, 182: GUDGER, 248: HARPER, 270: HUBBS, 328: KOELZ, 376: SCHULTZ, 632: TRAUTMAN, 714, 715: Mexico; TERRON, 704.

**Indian.**—India; RAO & SESHACHER, 559: Burma; HORA, 307: Siam; SMITH, 659, 660, 661, 663: Indo-China; CHEVEY, 128: Annam; HORA, 309: China; NICHOLS, 472, 474, 477, 478: WU, 765, 767, 769: WU & WANG, 771: HERRE & MYERS, 291: Hainan; HERRE & MYERS, 291: MYERS, 462: Malay; SMEDLEY, 655: Sumatra; BEAUFORT, 41: HARDENBERG, 269: New Hebrides; HERRE, 290: Formosa; MYERS, 459.

**Ethiopian.**—Africa; BORODIN, 68: FOWLER, 209: NICHOLS & LA MONTE, 480, 481: PELLEGRIN, 518, 520-522: TREWAVAS, 717: VAN DER HORST, 725: VINCIGUERRA, 734: WERNER, 748: Madagascar; NICHOLS & LA MONTE, 482.

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†*Dartmuthia* gen. n., *gemmifera* sp. n. Silurian U.S.A., PATTEN Science N.Y. 73 p. 672.

†*Didymaspis pustulata* sp. n. Silurian U.S.A., PATTEN t.c. p. 672.

†*Hemicyclaspis murchisoni* figs., KIAER 368.

†*Tremataspis milleri*, *mammillata*, spp. n. Silurian U.S.A., PATTEN t.c. p. 672.

## †HETEROSTRACI.

†*Coelolepis laevis*, *carinata*, *goebeli*, *schmidtii* figs., HOPPE 305.

†*Karelosteus* gen. n., *weberi* sp. n. Devonian Russia, OBRUTSCHEV Bull. Geol. Prosp. Serv. 49 1930 p. 94 [N.N.]

†*Nostolepis dentoides* p. 75 pl. vi figs. 29-30, pl. vii figs. 9-10, *lata* p. 75 pl. vi figs. 31-32, *pseudocostata* p. 76 pl. vi figs. 33-34, *parva* p. 76 pl. vi figs. 35-36 *formae* n. Silurian Esthonia, HOPPE Palaeontographica 10.

†*Thelodus taiti* sp. n. Devonian Scotland, STETSON J. Geol. Chicago 39 p. 143 text-figs. 1 C-E, 2 B-C, 3.

†*Thelolepis bicostata* p. 72 pl. vii figs. 23-24, *trilobata* p. 73 pl. vi figs. 25-27 *formae* n. Silurian Esthonia; *T. parvidens*, *glaber*, *costata* figs.; HOPPE t.c.

†*Camptaspis* gen. n., *utahensis* sp. n. Devonian U.S.A., BRANSON & MEHL J. Geol. Chicago 39 p. 510 pl. I figs. 1-3.

†*Cardipeltis* gen. n., *wallacii* sp. n. Devonian U.S.A., BRANSON & MEHL t.c. p. 517 pl. ii figs. 1-5.

†*Glossoidaspis* gen. n., *giganteus* sp. n. Devonian U.S.A., BRANSON & MEHL t.c. p. 523 pl. iii figs. 1-5.

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*Geotria* larvae from Argentine, MacDONAGH 410; *G. australis* devel. of gut in Ammocoete, MASKELL 424.

*Petromyzon marinus*, ANCONA [in] 191.

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†*Palaeospondylus gunni* figs., BULMAN 98.

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The following are believed to be egg-capsules of extinct Selachians:—

†*Scapellites minor* sp. n. Carboniferous Belgium, PRUVOST Mém. Mus. Hist. nat. Belg. 44 1930 p. 140 pl. ii figs. 4, 6; *S. cottoni* figs., PRUVOST 551.

†*Palaeoxyris appendiculata, prendeli*, figs., PRUVOST 551.

†*Vetacapsula johnsoni* fig., PRUVOST 551.

## †ICHTHYODORULITES.

†*Onchus roemeri forma* n. Silurian Esthonia, HOPPE Palaeontographica 10 p. 83 pl. viii figs. 6, 8; *O. latus* sp. n. Devonian Belgium, LERICHE Mém. Acad. roy. Belg. 10 p. 26 pl. v fig. 4 text-fig.

†*Striacanthus* gen. n., *sicaeformis* sp. n. Devonian Australia, HILLS Geol. Mag. 68 p. 213 text-fig.

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Of Spain, BUEN 91.

†*Rhadamas macrocephalus*, JAECKEL 348.

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*Hexanchus griseus*, BUEN [in] 191.

†*Notidanus (Heptanchias?) primigenius* figs., WEILER 744.

*Heptanchias cinereus*, BUEN [in] 191; *H. dakini* sp. n. S.E. Australia, WHITLEY Austr. Zool. 6 p. 310.

*Notorynchus macdonaldi* sp. n. Australia, WHITLEY Rec. Austr. Mus. 18 p. 138 pl. xx figs. 3-5.

## ODONTASPIDAE.

†*Odontaspis cuspidata, acutissima*, fig., WEILER 744; † *O. (Synodontaspis,*

subgen. n.), *cuspidata teretidens praemut*, n. p. 53 figs., 16-44; *O. rutoti, cuspidata hopei, macrota striata, robusta*, figs., Eocene England, WHITE Vertebrate Faunas English Eocene.

*Synodontaspis*, subgen. n. (of *Odontaspis*) type *Carcharias taurus* Rafinesque, White t. c. p. 51.

*Parodontaspis* subgen. n. (of *Odontaspis*) type *Odontaspis platensis*. Lahille, WHITE, t. c. p. 63.

## LAMNIDAE.

† *Lamna obliqua* figs., WHITE 750.

*Isuropsis* from S. Africa, WHITLEY 754 p. 140 pl. xx figs. 1-2.

†*Oxyrhina macrorhiza* figs., ERASMO 176.

†*Cacharodon megalodon* figs., ERASMO 176.

*Cetorhinus maximus* notes, BORRI 72.

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*Hemiscyllium plagiosum*, FOWLER 207 p. 287 fig. 1.

*Rhineodon typus* figs., GUDGER 252.

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†*Scyliorhinus minutissimus*, figs., WHITE 750.

*Proscyllium habereri*, SCHMIDT 610.

*Apristiurus macrorhynchus*, SCHMIDT 610.

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†*Physodon secundus* figs., WHITE 750.

†*Eugaleus minor*, figs., WHITE 750.

*Notogaleus* gen. n. type *Galeus australis*, WHITLEY Austr. Zool. 6 p. 310.

*Negogaleus* nom. n. = *Hemigaleus* Blecker nec Blainville or Jourdain, WHITLEY t. c. p. 334.

*Sphyrna* Philippine spp., HERRE 287.

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*Molochophrys* gen. n. type *Cestracion galeatus*, WHITLEY Austr. zool. 6 p. 310.

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*Echinorhinus brucus*, BUEN [in] 190.

*Rubusqualus* subgen. n. (of *Echinorhinus*), *mccoyi* sp. n. Australia, WHITLEY Austr. zool. 6 p. 311.



*Oxynotus centrina*, ANCONA [in] 190, 191.

*Squalus montalbani* sp. n. Philippines (= *S. philippinus* Smith nec Shaw), WHITLEY t.c. p. 310; *S. griffini*, *kirki* spp. n. N. Zealand, PHILLIPPS N.Z. J. Sci. Tech. 12 p. 360; †*S. orpiensis* figs., WHITE 750.

*Scymnorhinus philippii* sp. n. S. Australia, WHITLEY t.c. p. 310.

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*Squatina squatina*, BUEN [in] 190; †*S. prima* figs., WHITE 750.

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*Torpedo marmorata*, *ocellata*, *nobiliana*, ANCONA [in] 190, 191.

*Hypnos subnigrum* = *H. monopterygium*, WHITLEY 752 p. 329.

##### RHINOBATIDAE.

*Rhinobatus irvinei* sp. n. Gold Coast, NORMAN Ann. Mag. N.H. (10) 7 p. 352 fig. 1; *R. cemiculus* from Senegal, CHABANAUD 113.

*Aptychotrema rostrata*, WHITLEY 753 p. 96 pl. xvi fig. 2.

##### RAIIDAE.

*Raia* identification of British spp., STEVEN 682; *R. asterias*, *fyllae*, *melitensis*, *miraletus*, *polystigma*, *radula*, *spinicauda*, CLARK [in] 190; *R. batis*, *brachyura*, *circularis*, *clavata*, *marginata*, *oxyrhynchus*, CLARK [in] 191.

*Irolita* gen. n. type *Raja waitii*, WHITLEY Rec. Austr. Mus. 18 p. 97.

#### TRYGONIDAE.

†*Hypolophus sylvestris* sp. n. Eocene England, WHITE Vertebrate Faunas English Eocene, p. 70 figs., 94-108, (?) 109-115.

*Taeniura lymnia halgani*, WHITLEY 753 p. 97 pl. xi.

*Urolophoides* gen. n. p. 24, *giganteus* sp. n. Peter the Great Bay p. 26 fig. 4, SOLDATOV & LINDBERG Bull. Pac. Sci. Fish. Inst. 5 1930.

#### HOLOCEPHALI.

†*Chimaera eocenica*, figs., WHITE 750.

†*Ptyctodus obliquus* figs., DUTERTRE 168.

*Harriotta pinnata* sp. n. S.W. Africa, egg-capsule, SCHNAKENBECK Mitt. zool. Mus. Hamburg 44 p. 39 figs. 6-9; *H. (Rhinochimaera) atlantica*, SCHNAKENBECK [in] 190.

#### †PLACODERMI.

##### †ARTHRODIRA.

†*Coccosteus mironovi* sp. n. Devonian Russia, OBRUTSCHEW Trav. Mus. Geol. Leningrad 8 p. 295 [N. N.]; *C. involutus* nom. n. = *C. angustus* Bryant nec Traquair, BRYANT Bull. New York St. Mus. Albany 286 p. 153; *C. trautscholdi* descr. and fig., OBRUTSCHEW t.c.; *C. decipiens* structure, HEINTZ 276.

†*Dinichthys* reconstruction, HEINTZ 277; *D. belgicus* sp. n. Devonian Belgium, LERICHE Mém. Acad. roy. Belg. 10 p. 21 pl. iv, pl. v fig. 1; *D. (?) jeffersonensis* sp. n. Devonian U.S.A., BRANSON & MEHL J. Geol. Chicago 39 p. 529.

†*Stenognathus gouldi*, reconstruction, HEINTZ 279.

†*Titanichthys* sp. figs., HEINTZ 278.

†*Holonema rohani* sp. n. Devonian Russia, OBRUTSCHEV Bull. Geol. Prosp. Serv. 49 1930 p. 94 [N. N.]; *H. radiatum* sp. n. Devonian Russia, OBRUTSCHEV Trav. Mus. Geol. Leningrad 8 p. 287 [N. N.].

†*Gyroplacosteus* gen. n., *panderi* sp. n. Devonian Russia, OBRUTSCHEV Bull. Geol. Prosp. Serv. 49 1930 p. 94 [N. N.].

†*Phyllolepis concentrica*, *undulata* figs., LERICHE 395.

##### †ANTIARCHA.

Monographed by STENSTÖ Medd. Grønland 86 (1); systematic position, GROSS 244.

†*Asterolepis cristata* sp. n. Devonian Russia, OBRUTSCHEV Bull. Geol. Prosp. Serv. 49 1930 p. 94 [N. N.]; *A. ornata* descr. and fig., GROSS 244.

†*Bothriolepis lohesti* sp. n. Devonian Belgium, LERICHE Mém. Acad. roy. Belg. 10 p. 15 pl. iii figs. 1B, 2-6; *B. grönlandica* described p. 161 figs., *B. (?) ymeri* sp. n. Devonian Greenland p. 165 figs., STENSJÖ t.c.

†*Cypholepis* gen. n., *livonica* sp. n. Devonian Russia, GROSS Palaeontographica 75 p. 49 pl. iv figs. 16-17.

†*Remigolepis* gen. n. p. 166, *cristata* p. 184 figs., *kochi* p. 185 figs., *kullingi* p. 188 figs., *acuta* p. 190 figs. spp. n. Devonian Greenland; *R. incisa* descr. and fig. p. 183; *R. (?) tuberculata* sp. n. Devonian Greenland p. 192 figs.; STENSJÖ t.c.

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Notes on related families, BROUGH P.Z.S. 1931 p. 279.

†*Acrolepis hopkinsi* figs., ALDINGER 13.

†*Birgeria stensjöi* sp. n. Triassic Germany, ALDINGER N. Jahrb. Geol. Paläont. 66 p. 177 pl. xviii fig. 1.

†*Dicellogyge* gen. n. p. 238, *macrodentatus* p. 239 pl. i fig. 2 text-fig. 1, *lissocephalus* p. 242 pl. i fig. 3 text-fig. 2 spp. n. Triassic South Africa, BROUGH t.c.

†*Drydenius molyneuxi* fig., PRUVOST 551.

†*Elonichthys gondwanus* sp. n. Triassic Brazil, HUSSAKOF Bol. Serv. geol. min. Brasil 49 1930 p. 6 figs. 2-4; *E. denticulatus* figs., WEHRLI 742.

†*Rhadinichthys renieri* figs., PRUVOST 551.

†*Urostheneis latus* sp. n. Carboniferous Australia, WOODWARD Ann. Mag. nat. Hist. 8 p. 367 pl. xiv.

#### †PLATYSOMIDAE.

†*Platysomus parvulus* fig., PRUVOST 551.

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#### †CATOPTERIDAE.

Osteology etc. p. 280 figs., of N. America p. 270, BROUGH P.Z.S. 1931.

†*Catopterus redfieldi*, BROUGH t.c. p. 271 figs. 14-15.

†*Daedalichthys* gen. n., *higginsii* sp. n. Triassic S. Africa, BROUGH t.c. p. 245 pl. i fig. 4 text-fig. 3.

†*Dictyopyge decipiens* sp. n. Triassic N. America, BROUGH t.c. p. 275 pl. iv figs. 2-3 text-fig. 16.

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#### †PERLEIDIDAE.

Osteology etc., BROUGH P.Z.S. 1931 p. 280 figs.

†*Cleithrolepis* systematic position p. 269, *C. minor* descr. and fig. p. 267 fig. 13, BROUGH t.c.

†*Meidichthys* gen. n. p. 261, *browni* sp. n. Triassic S. Africa p. 262 pl. iv fig. 1 text-figs. 11-12, BROUGH t.c.

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†*Cleithrolepis brückneri* sp. n. Triassic Germany, OERTLE Cbl. Min. Geol. Paläont. 6 p. 297 fig. 1.

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†*Coelodus parallelus, attenuatus*, figs., SARRA 601.

†*Pycnodus toliapicus* fig., SARRA 601.

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†*Pholidophorus oblongus* figs., ERASMO 176.

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†*Otolithus (Elops) recurvus*, sp. n. Eocene England, FROST [in] Vertebrate Faunas, English Eocene, p. 105, pl. i. fig. 9.

## ALBULIDAE.

†*Albula eppsi* sp. n. Eocene England, WHITE and FROST Vertebrate Faunas English Eocene, p. 83, figs. 137-140, 1 pl.

†*Otolithus (Albula) eppsi* sp. n., WHITE and FROST t.c. p. 105 pl. i. fig. 8.

## ALEPOCEPHALIDAE.

*Alepocephalus edentulus atlanticus* subsp. n. Eastern Atlantic, ROULE & ANGEL Bull. Inst. océan. Monaco 581 p. 5.

*Leptochilichthys agassizi macrops* subsp. n. Morocco, ROULE & ANGEL t.c. p. 6.

*Bathytroctes curvifrons* sp. n. Gulf of Gascony, ROULE & ANGEL t.c. p. 6.

*Gasposomus schmidtii* sp. n. near New Guinea, ANGEL & VERRIER Ann. Inst. océanogr. N.S. 10 p. 121 fig. 1; *A. cyaneus*, BORODIN 71 p. 61 pl. i; = *Xenodermichthys socialis*, ROULE & ANGEL t.c. p. 3.

## CLUPEIDAE.

Of China, FOWLER 208.

*Neosudis* = *Chirocentrus*, WHITLEY 753 p. 100.

†*Clupea tanegashimaensis* sp. n. Tertiary Japan, SAHEKI J. Geol. Soc. Tokyo 36 1929 pp. 22 pl. xviii fig. 1; †*C. gregaria* figs., ERASMO 177, 178.

*Harengula lippa* p. 142 fig. 1, *maccullochi* p. 143 fig. 2 spp. n. N.W. Australia, WHITLEY Rec. Austr. Mus. 18.

*Amblygaster posterus* sp. n. W. Australia, WHITLEY t.c. p. 144.

†*Alosa nordmanni* figs., PAUCĀ 517; †*A. crassa, elongata, doljeana, arcuata*, figs., ERASMO 177, 178.

*Nealosa* gen. n. type *Chatoessus punctatus*, HERRE & MYERS Lingnan Sci. J. 10 p. 236.

*Indialosa* subgen. n. (of *Gonialosa*) type *Clupanodon manmina*, HERRE & MYERS t.c. p. 238.

†*Spratelloides lemoinei* figs., ERASMO 178.

*Austranchovia* gen. n. type *Atherina australis*, WHITLEY Austr. Zool. 6 p. 311.

*Anchoviella venezuelae* sp. n. Venezuela, FOWLER Proc. Acad. N.S. Philad. 83 p. 406 fig. 6.

*Stolephorus baganensis* sp. n. Sumatra, HARDENBERG Treubia 13 p. 107.

†*Syllaemus anglicus* figs., CHABANAUD 110.

## KNERIIDAE.

*Kneria cameronensis abbreviata* var. n. French Equat. Africa, PELLEGRIN Bull. Soc. zool. Fr. 56 p. 206.

## SALMONIDAE.

*Salmo trutta* morphometrical studies, DIXON 161; in caves, BIESE & PAPPENHEIM 58; *S. trutta pellegrini* var. n. Morocco, WERNER SitzBer. Akad. Wiss. Wien 40 p. 262 pl. i fig. 1; *S. kamloops whitehousei* p. 2, *clarkii alpestris* p. 4 subsp. n. British Columbia, DYMOND Contr. Canad. Biol. Fish. N.S. 6 (16).

*Salvelinus tolmachoffi* p. 4 pl. i, *boganidae* p. 5 pl. ii spp. n. Russia, BERG Mat. Comm. Ét. Rép. A.S.S.I. Leningrad 2 1926.

*Leucichthys bartletti* sp. n. N.E. America p. 68 pl. xxxix; *L. artedi* synopsis of subsp. p. 311, *L. artedi greeleyi* p. 313, *huronius* p. 317, *annensis* p. 319, *sargenti* p. 320, *hankinsoni* p. 323, *russeli* p. 324, *atikamek* p. 326, *mackayi* p. 327, *clarensis* p. 340, *clemensi* p. 347, *lowei* p. 350, *microcephalus* p. 357, *wagneri* p. 360, *mendo-tae* p. 362, *woodi* p. 363, *magnus* p. 366, *winnipegosis* p. 366 subsp. n. N.E. America, KOELZ Pap. Mich. Acad. Sci. 13.

*Coregonus* variations with habitat, MONTI 442; North European forms, ODENWALL 495; of Italian Lakes, MONTI 441, PEROTTI 525, STALZ 683; *C. albula* variation, WILLER 758; *C. clupeiformis* synopsis of subspp. p. 371, *latus* p. 373, *medorae* p. 378, *dustini* p. 379, *gulliveri* p. 380 subspp. n. N.E. America, KOELZ t.c.

*Prosopium quadrilaterale minor* subsp. n. N.E. America, KOELZ t.c. p. 382.

*Thymallus arcticus* var. *brevipinnis* et *baicalensis*, SUETOVIDOV 692.

#### ARGENTINIDAE.

*Argentina silus, sphyraena*, SCHNAKENBECK [in] 190.

*Bathylagus nigrigenys* p. 4 fig. 2, *longiceps* p. 6 fig. 3 spp. n. Pacific coast of Mexico, PARR Bull. Bingham Ocean. Coll. 2 (4).

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*Osmerus eperlanus*, SCHNAKENBECK [in] 190.

*Mallotus villosus*, SCHNAKENBECK [in] 190.

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*Protosalang tangkahkeii* sp. n. China, WU Bull. Mus. Paris (2) 3 p. 219.

#### GONOSTOMATIDAE.

*Zaphotias nudum*, BORODIN 71 p. 71 pl. ii fig. 2.

*Paraphotichthys* nom. n. = *Manducus* Goode & Bean nec Huebner, WHITLEY Austr. Zool. 6 p. 334.

*Diplophos* key to spp. p. 13, *D. proximus* sp. n. Pacif. coast of Mexico p. 14 fig. 4, *argenteolus* descr. p. 16, PARR t.c.

*Ichthyococcus ovatus*, BORODIN 71 p. 69 pl. ii fig. 1.

*Danaphos* gen. n., *asteroscopus* sp. n. Indian Ocean, BRUN Vidd. Medd. nat. For. 92 p. 287.

*Thorophos* gen. n., *euryops* sp. n. Philippines, BRUN t.c. p. 288.

*Valenciennellus* notes p. 289, *V. carlsbergi* sp. n. Banda Sea p. 290, BRUN t.c.

#### STERNOPTYCHIDAE.

*Argyropelecus lychnus*, PARR 509 p. 17; †*A. logearti* sp. n. Miocene N. Africa, ARAMBOURG Bull. Soc. géol. Fr. 29 p. 11 pl. iii figs. 1-3, text-figs. 1-2.

†*Sternoptyx prisca* sp. n. Oligocene Rumania, PAUCA Bull. Acad. Roumaine 14 (1-2) p. 29 2 figs.

#### STOMIATIDAE.

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*Stomias* key to spp. p. 7, *S. atriventer* notes p. 10, PARR Bull. Bingham Ocean. Coll. 2 (4).

*Odontostomias micropogon* young figured, FRASER-BRUNNER 220.

*Parastomias* gen. n. type *Eustomias tetranema*, ROULE & ANGEL Bull. Inst. océan. Monaco 581 p. 4.

*Eustomias radicifilis* barbel figured, BORODIN 71 pl. v fig. 1; *E. boureei* is a *Flagellostomias*, ROULE & ANGEL t.c. p. 5.

*Lamprotorus flagellibarba*, ROULE & ANGEL t.c. p. 7.

*Trichostomias alberti* sp. n. E. Atlantic, ROULE & ANGEL t.c. p. 7.

*Echiostoma richardi* is a *Photonectes*, ROULE & ANGEL t.c. p. 5.

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*Scleropages formosus* from Siam, SMITH 660.

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*Latropiscis* gen. n. type *Aulopus milesii*, WHITLEY Austr. Zool. 6 p. 312.

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†*Synodus avus* figs., ERASMO 178.

*Paralepis* monograph of genus; synopsis of spp. and subspp. p. 7, *P. affinis* p. 81 figs., *thermophilus* p. 89 figs. spp. n., *pseudosphyraenoides danae* subsp. n. p. 79 figs. N. Atlantic; EGE Rep. Danish Ocean. Exp. 1908-1910

Medit. 2 A 13 1930; *P. pacificus* sp. n. Pacif. coast of Mexico, PARR Bull. Bingham Ocean. Coll. 2 (4) p. 19 figs. 6, 7; *P. brevirostris*, *bronsoni*, *atlanticus* notes and figs., PARR 513; †*P. megistosoma* figs., ERASMO 177.

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*Luciosudis* gen. n., *normani* sp. n. off W. Africa, FRASER-BRUNNER Ann. Mag. Nat. Hist. 8 p. 220 fig. 2.

*Lestidium nudum* from Japan, SCHMIDT 613; *L. atlanticum*, *elegans* notes and figs., PARR 513.

†*Sudis spehodes* figs., ERASMO 177; †*S. taenia* figs., ERASMO 178.

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*Neoscopelus bruni* sp. n. Australia, WHITLEY Austr. Zool. 6 p. 312.

*Lampanyctus* revision of *macropterus* group of spp. p. 24, *L. idostigma* sp. n. Pacif. coast of Mexico p. 32 fig. 13, *omostigma parvicauda* subsp. n. Pacif. coast of Mexico p. 26 fig. 9, PARR t.c.; *L. joubini* sp. n. p. 127 fig. 3, *macropterus tanningi* subsp. n. p. 124 fig. 2 near New Guinea, ANGEL & VERRIER Ann. Inst. oceanogr. N.S. 10; *L. piabilis* sp. n. Macquarie I., WHITLEY Rec. Austr. Mus. 18 p. 103 fig.; *L. fraseri* sp. n. off W. Africa, FRASER-BRUNNER Ann. Mag. Nat. Hist. 8 p. 224 fig. 4.

*Myctophum laternatum*, PARR Bull. Bingham Ocean. Coll. 2 (4) p. 23 fig. 8; *M. arcticum*, *glaciale*, *laternatum atlanticum*, *rissoi*, *valdiviae*, TÄNING [in] 190.

*Diaphus pacificus* sp. n. Pacif. coast of Mexico, PARR t.c. p. 34 fig. 14; *D. fulgens*, FRASER-BRUNNER t.c. p. 223 fig. 3.

†*Myctophus dainellii* sp. n. Miopliocene Italy p. 30 pl. ii figs. 11-13, text-fig. 6, *N. dorsalis*, *columnae*, *probenoiti*, *larteti*, *licartae*, *microsoma*, *ecnomi*, *vevillifer*, *edwardsi* figs., ERASMO Atti Acc. Sci. fis. mat. Napoli 18 1930; †*N. microsoma*, *edwardsi* figs., ERASMO 178.

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*Scopelarchoides nicholsi*, PARR 509 p. 35 fig. 15.

*Odontostomus balbo atlanticus* subsp. n. N. Atlantic, BORODIN Bull. Mus. Comp. Zool. 72 p. 78.

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## CHARACIDAE.

*Hemigrammopetersius trilobatus* sp. n. French Equat. Africa, PELLEGRIN Bull. Soc. zool. Fr. 56 p. 207.

*Knodus calliurus* sp. n. S. America, AHL SitzBer. Ges. naturf. Fr. 1931 p. 208 fig. 2.

*Serrasalmus boekeri* sp. n. S. America, AHL t.c. p. 406 fig.

*Metynnis fasciatus* sp. n. Brazil, AHL t.c. p. 407 fig.

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*Curimatus hermanni* sp. n. S. America, AHL SitzBer. Ges. naturf. Fr. 1931 p. 207.

*Curimatopsis macrocephalus* sp. n. S. America, AHL t.c. p. 207 fig. 1.

## HEMIODONTIDAE.

*Nannostomus aripirangensis* sp. n. Amazon, *N. anomalus*, *marginatus* descr. and fig., MEINKEN Wochen. Aquar. Terr. 1931 (34).

## CITHARINIDAE.

*Ra* nom. n. = *Ichthyoborus* Günther nec Kaup, WHITLEY Austr. Zool. 6 p. 334.

## CYPRINIDAE.

*Opsariichthys hainanensis*, NICHOLS 476.

*Laubuca caeruleostigmata* sp. n. Siam, SMITH Proc. U.S. Nat. Mus. 79 (7) p. 5 fig. 3.

*Barilius chenchuiwei* sp. n. China, CHU China J. Shanghai 15 p. 33 figs. 17, 17A-B; *B. macrops* sp. n. China, SHU-YEN Carps and Carp-like fishes etc. 1931 p. 144; *B. roulei* sp. n. Chekiang, China, WU Bull. Mus. Paris (2) 3 p. 433; *B. koratensis* p. 16 fig. 7, *pulchellus* p. 17 fig. 8 spp. n. Siam, SMITH t.c.; *B. gatensis*, MUKERJI 456.



*Danio kerri* p. 6, *pulcher* p. 8 spp. n. Siam, SMITH t.c.; *D. (Brachydanio) nigrofasciatus*, HORA 308 p. 2 fig. 2.

*Rasbora meinkeni* sp. n. Sumatra, BEAUFORT Aquar. Berlin p. 8; *R. daniconicus* fig., HENZELMANN 285.

†*Aspius gracilis* figs., ERASMO 178.

*Scombrocypris styani*, NICHOLS 476.

†*Blicca croydonensis* sp. n. Eocene England, WHITE Vertebrate Faunas English Eocene p. 85 figs. 142-144.

*Megalobrama hoffmanni* sp. n. China, HERRE & MYERS Lingnan Sci. J. 10 p. 241.

*Yaoshanicus* gen. n. p. 50, *arcus* sp. n. China p. 51, SHU-YEN t.c.

*Parapelecus oligolepis* sp. n. China, WU & WANG Contr. Biol. Lab. Sci. Soc. China 7 p. 222 fig. 1.

*Paracanthobrama pingi* sp. n. Kuikiang, China, WU Contr. Biol. Lab. Sci. Soc. China 6 1930 p. 48 fig. 1.

*Leuciscus leuciscus roulei* nat. n. Czecho-Slovakia, VLADYKOV Mem. Soc. zool. Fr. 29 p. 311 fig. 18; *L. caurinus* notes, HUBBS & SCHULTZ 332.

*Mylocheilus caurinus*, HUBBS & SCHULTZ 332.

*Clarkina* notes, HUBBS & SCHULTZ 332.

*Notropis volucellus wickliffi* subsp. n. U.S.A., TRAUTMAN Ohio J. Sci. 31 p. 470 fig. 1.

*Nazatexico* nom. n. = *Orcella* and *Orcula* praecox., WHITLEY t.c. p. 334.

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†*Rhodeus elongatus* figs., ERASMO 178.

*Pseudoperilampus lighti* sp. n. Fukien, China, WU Contr. Biol. Lab. Sci. Soc. China 7 p. 25 fig. 4.

*Cyprinus rabaudi* fig., TCHANG 701 fig. 1.

*Carassius auratus* "cleaning reflex," KOBAYASHI 375.

*Probarbus jullieni* from Siam, SMITH 660.

*Barbus roulei* sp. n. Fukien, China, WU Contr. Biol. Lab. Sci. Soc. China 7 p. 15 fig. 2; *B. moulouyensis grandisquamata* var. n. Morocco, PELLEGRIN Bull. Mus. Paris (2) 2 1930 p. 623; *B. arulius, carnaticus, micropogon* var. *mysorensis*, MUKERJI 456; *B. setivimensis labiosa* fig., WERNER 748; *B. (Spinibarbichthys) pingi* p. 229 fig. 2, *B. (Labeobarbus) szechwanensis* p. 230 fig. 3 spp. n. Szechwan, China, TCHANG Bull. Fan Mem. Inst. Biol. 2; *B. (Lissochilichthys) parallens* sp. n. China, NICHOLS Lingnan Sci. Journ. 10 p. 455 fig. 1.

*Labeobarbus reini* fig., WERNER 748; *L. tambroides, soro, duoronensis* from Siam, SMITH 660.

*Lissochilus* Chinese spp., HERRE & MYERS t.c. p. 242.

*Puntius wetmorei* p. 12, *stigmatosomus* p. 13 spp. n. Siam, SMITH t.c.

*Poropuntius* gen. n. p. 14, *normani* sp. n. Siam p. 15, SMITH t.c.

*Spratlicypris* gen. n. type *Barbodes palata*, HERRE & MYERS t.c. p. 239.

*Barbellion* nom. n. = *Barynotus* Günther nec Garman, WHITLEY Austr. Zool. 6 p. 334.

*Cyclocheilichthys tapiensis* sp. n. Siam, SMITH t.c. p. 11 fig. 5; *C. repasson*, HORA 308 p. 1 fig. 1; *C. heteronema* from Siam, SMITH 660.

*Varicorhinus maroccanus* fig., WERNER 748; †*V. nuntius* sp. n. Tertiary Russia, BOGACHEV Ann. Lenin State Univ. Azerbaijan 6 1927 p. 6 pls. ii-iii.

*Scaphiodon brevidorsalis, nashii*, MUKERJI 456.

*Sikukia* gen. n., *stejnegeri* sp. n. Siam, SMITH Copeia 1931 p. 138.

*Albulichthys albuloides* from Siam, SMITH 660.

*Labeo pietschmanni* sp. n. Sumatra, MACHAN Anz. Akad. Wien 67 1930 p. 67; *L. pingi* sp. n. Fukien, China, WU Contr. Biol. Lab. Sci. Soc. China 7 p. 20 fig. 3; *L. bicolor* sp. n. Siam, SMITH Proc. U.S. Nat. Mus. 79 (7) p. 9 fig. 4.

*Ptychidio* gen. n. p. 110, *jordani* sp. n. Formosa p. 112 figs., MYERS Copeia 1930 (4).

*Mystacoleucus marginatus* from Siam, SMITH 660.

*Catla catla*, SMITH 660.

*Epalzeorhynchus siamensis* sp. n. Siam, SMITH t.c. p. 20 fig. 9; *E. kalopterus* from Siam, SMITH 660.

*Crossocheilus reba, oblongus* from Siam, SMITH 660.

*Garra bicornua* sp. n. Mysore, RAO & SESHACHAR Half-Year J. Mysore Univ. 1 1927 p. 127; *G. taeniata* sp. n. Siam, SMITH t.c. p. 19 pl. i.

*Gyrinocheilus kaznakoi* respiratory movements, SMITH 660.

*Pseudorasbora pumila* sp. n. Japan, MIYADI Ann. Zool. Jap. 12 1930 p. 445 fig. 1.

*Oreinus prenanti* fig., TOHANG 701 fig. 4.

*Schizothorax griseus* pp. 146, 289 fig., *multipunctatus* p. 148 fig. spp. n. Yang-Tse, China, PELLEGRIN Bull. Soc. zool. Fr. 56.

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*Gobio (Leucogobio) hsui* sp. n. China, WU & WANG Contr. Biol. Lab. Sci. Soc. China 7 p. 227 fig. 3.

*Leucogobio tienmusanensis* sp. n. China, CHU China J. Shanghai 15 p. 37 figs. 19, 19A.

*Paraleucogobio umbrifer* sp. n. China, SHU-YEN t.c. p. 86; *P. cheni* sp. n. Chekiang, China, WU Bull. Mus. Paris (2) 3 p. 435.

*Pseudogobio obtusirostris* sp. n. China, WU & WANG t.c. p. 230 fig. 5; *P. bicolor* p. 1 fig. 1, *papilabrus* p. 2 fig. 2 spp. n. China, NICHOLS Amer. Mus. Nov. 440.

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*Sarcochelichthys (Barbodon) parvus, kiangsiensis* figured, NICHOLS 475.

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*Discogobio* gen. n., *tetrabárbus* sp. n. China, SHU-YEN t.c. p. 72.

*Varicogobio* gen. n., *kaa* sp. n. China, SHU-YEN t.c. p. 74.

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Of Hopei Province, China, etc., SHAW & TCHANG Bull. Fan. Mem. Inst. Biol. 2 p. 65.

*Diplophysa strauchii ulacholica* descr. and fig. p. 312 fig. 1, *pedaschenkoi* var. n. Turkestan p. 313 fig. 2, BERG Zool. Anz. 96.

*Acanthopsis taenia paludica* form. n. (?) Spain, BUEN Bol. Oceanogr. Pesc. 15 p. 483.

*Barbatula cuneicephalus* sp. n. N. China, SHAW & TCHANG t.c. p. 81 fig. 10; *B. (Homatula) incerta* sp. n. China, NICHOLS Lingnan Sci. Journ. 10 p. 458 fig. 2.

*Botia beauforti* p. 2 fig. 1, *horae* p. 4 fig. 2 spp. n. Siam, SMITH Proc. U.S. Nat. Mus. 79 (7); *B. compressicauda* sp. n. Fukien China, NICHOLS Amer. Mus. Novit. 449 p. 2; figured, NICHOLS 475; *B. striata* sp. n. Mysore, RAO & SESHACHAR Half-Year J. Mysore Univ. 1 1927 p. 123.

†*Cobitis senogalliensis* figs., ERASMO 177.

*Enobarbichthys* gen. n. type *Platacanthus maculatus*, WHITLEY Rec. Austr. Mus. 18 p. 107.

*Gobiobotia abbreviata* p. 291 fig. 2, *longibarba* p. 294 fig. 3 spp. n. China, FANG & WANG Contr. Biol. Lab. Sci. Soc. China 7.

*Leptobotia hopeiensis* sp. n. N. China, SHAW & TCHANG t.c. p. 70 figs. 3, 4.

*Nemachilichthys shimogensis* sp. n. Mysore, RAO & SESHACHAR t.c. p. 124.

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*Crossostoma fangi* sp. n. S. China, NICHOLS Lingnan Sci. Journ. 10 p. 263 fig.

*Parhomaloptera normani* sp. n. Annam, HORA Ann. Mag. N.H. 6 p. 584 pl. xv.

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*Sinogastromyzon szechuanensis* sp. n. China, FANG Contr. Biol. Lab. Sci. Soc. China 6 p. 99 figs. 1-2.

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*Diplomystes viedmensis* sp. n. Argentine, MACDONAGH Not. Prel. Mus. La Plata 1 p. 65.

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*Arius sciurus* sp. n. Siam, SMITH Proc. U.S. Nat. Mus. 79 (7) p. 30.

*Batracocephalus mino* from Siam, SMITH 660.

*Tachysurus atropilumbeus* sp. n. Trinidad, FOWLER Proc. Acad. N.S. Philad. 83 p. 394 fig. 2.

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*Silurus glanis*, SPÄRCK 674; GILTAY 233.

*Callichrous bimaculatus* breeding, RAO & SECHACHAR 559.

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*Mystus havmolleri* sp. n. Siam, SMITH Proc. U.S. Nat. Mus. 79 (7) p. 24 fig. 12.

*Pseudobagrus eupogoides* p. 51 fig. 3, *chinensis* p. 53 fig. 4 spp. n. Sze-Chuan, China, WU Contr. Biol. Lab. Sci. Soc. China 6 1930.

*Pseudotrochichthys* = *Cranoglanis*, systematic position, MYERS 462.

*Leiocassis tenuifurcatus* sp. n. Fukien, China, NICHOLS Amer. Mus. Novit. 449 p. 1; figured, NICHOLS 475; *L. (Dermocassis) analis* sp. n. China, NICHOLS Amer. Mus. Nov. 440 p. 4 fig. 3.

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*Phractura gladysae* sp. n. French Equat. Africa, PELLEGRIN Bull. Soc. zool. Fr. 56 p. 209.

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*Lais hexanema* from Siam, SMITH 660.

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*Pangasianodon* gen. n., *gigas* sp. n. Indo-China, CHEVEY Bull. Soc. zool. Fr. 55 1930 p. 536 figs.

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*Chiloglanis pretoriae* p. 248 fig., *swierstrai* p. 249 fig., *pumilus* p. 250 fig. spp. n. Transvaal, VAN DER HORST Ann. Transv. Mus. 14.

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*Henonemus panzeri* sp. n. S. America, AHL SitzBer. Ges. naturf. Fr. 1931 p. 210 fig. 3.

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*Corydoras melini* sp. n. Amazon, LÖNNBERG & RENDAHL Ark. Zool. 22 A (5) p. 1 fig. 1.

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*Cyclopium ubidiai* sp. n. Ecuador, PELLEGRIN Rev. suisse zool. 38 p. 113 fig.

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*Verdithorax* gen. n. type *Muraena prasina*, WHITLEY Austr. Zool. 6 p. 311.

*Gymnothorax* notes, WHITLEY 753; *G. neglectus* from Japan, SCHMIDT 613 p. 31.

*Arndha* gen. n. type *Echidna zebra*, DERANIYAGALA Spoilia zeylan. 16 p. 132.

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*Moringua macrochir* fin changes due to age, DERANIYAGALA 156.

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*Nemichthys* pharyngeal sac, BORODIN 71 p. 73 pl. v fig. 3; *N. scolopaceus*, ROULE & BERTIN [in] 191.

*Avocettina scapularostris*, BORODIN 71 p. 74 pl. iii figs. 1-3; *A. infans*, ROULE & BERTIN [in] 190.

*Borodinula* nom. n. = *Avocettina* Jordan & Davis nec Bonaparte, WHITLEY Austr. Zool. 6 p. 334.

*Serrivomer sector*, ROULE & BERTIN [in] 190.

*Paraserrivomer* gen. n. type *Gavialiceps hasta*, ROULE & ANGEL Bull. Inst. océan. Monaco 591 p. 2.

*Gavialiceps tinayrei* = *Avocettina infans*, ROULE & ANGEL t.c. p. 3.

## CONGRIDAE.

*Congermuraena mystax*, ANCONA [in] 191.

*Ophisoma balearica*, ANCONA [in] 191.

*Uroconger varidens* PARR 509.

## NESSORHAMPHIDAE.

*Nessorhamphus* gen. n., *ingolfianus* sp. n. Cosmopolitan, SCHMIDT Vid. Medd. nat. For. 90 1930 p. 372 pls. iv-v.

## ECHELIDAE.

*Echelus myrus*, ANCONA [in] 190.

## OPHICHTHYIDAE.

†*Sphagebranchus* (?) *pusillus* figs., ERASMO 177.

*Callechelys longipinnis*, *kirki*, DERANIYAGALA 156.

*Ophichthys celebicus sumatranus* var. n. Sumatra, MACHAN Anz. Akad. Wien 67 1930 p. 67; *O. urolophus*, SCHMIDT 612 p. 105 figs.

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*Cirrhimuraena paucidens* sp. n. Hainan, HERRE & MYERS Lingnan Sci. J. 10 p. 249.

## SYNENTOGNATHI.

## SCOMBRESOCIDAE.

*Cololabis saira* sexual dimorphism, YASUNARI 781.

## HEMIRHAMPHIDAE.

*Hemirhamphus praematurus* sp. n. Hawaii, SCHINDLER Anz. Akad. Wien 67 1930 p. 79.

*Reporhamphus* gen. n. type *Hemirhamphus australis*, *R. ardelis* sp. n. N.S. Wales, WHITLEY Austr. Zool. 6 p. 314.

*Ardeapiscis* gen. n. type *Hemirhamphus welsbyi*, WHITLEY t.c. p. 314.

*Loligorhamphus* gen. n., *normani* sp. n. Queensland, WHITLEY Rec. Austr. Mus. 18 p. 105 pl. xii figs. 2-3.

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*Cyprinodon iberus*, PELLEGRIN [in] 190, 191.

*Panchax* spp. ovipary, AHL 8.

*Haplochilus lujae louessensis* var. n. French Equat. Africa, PELLEGRIN Bull. Soc. zool. Fr. 56 p. 221.

*Fundulus vinctus* = *F. heteroclitus macrolepidotus*, *F. extensus* = *F. diaphanus*, *F. ocellaris* = *F. catenatus*, *F. balboae* = *F. notatus*, HUBBS 328.

†*Aelia crassicauda*, *gaudryi*, *gobio*, *megasoma*, *orsinii*, figs., ERASMO 177; †*A. globio*, *orsinii* figs., ERASMO 178.

†*Prolebias praecursor* sp. n. Oligocene Germany, WEILER Notizbl. Ver. Erdk. Darmstadt 12 1930 p. 110 pl. vi fig. 14; *P. meyeri* figs., ERASMO 177; *P. furcatus* figs., ERASMO 178.

*Characodon furcidents*, HUBBS 328.

*Peltatetraops* subgen. n. (of *Anableps*) type *Anableps microlepis*, FOWLER Proc. Acad. N.S. Philad. 83 p. 396.

*Furcipenis* gen. n. type *Priapichthys huberi*, HUBBS Occ. Pap. Mus. Zool. Univ. Mich. 230.

*Limia nicholsi* sp. n. Sto. Domingo, MYERS Amer. Mus. Novit. 503; *L. nigrofasciata*, *arnoldi* figs., AHL 9.

*Mollienisia dominicensis*, MYERS 460.

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*Macrurus laevis*, *coelorhynchus*, *rupes- tris*, SCHNAKENBECK [in] 190.

*Fuyangia* nom. n. = *Chalmina* Goode & Bean nec Dalman, WHITLEY Austr. Zool. 6 p. 334.

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†*Otolithus* (*Gadus*) *eppi* p. 106 pl. i fig. 14, *eocenicus* p. 106 pl. i fig. 15 spp. n. Eocene England, FROST [in] Vertebrate Faunas English Eocene.

*Molva elongata*, ANCONA [in] 190, 191.

*Motella cimbria*, CHAINE & DUVER- GIER 118.

*Bregmaceros* key to spp., *B. maccliel- landi* notes, PARR 509 p. 48; †*B. albyi* figs., ERASMO 177.

#### MERLUCCIIDAE.

*Merluccius merluccius* synonymy and specific characters, BELLOC Rev. Trav. Pêches marit. Paris 2 1929 pp. 185-192.

†*Otolithus* (*Merluccius*) *ovalis* p. 106 pl. i fig. 10, *tenuis* p. 107 pl. i fig. 11, *marriotti* p. 107 pl. i fig. 12, spp. n. Eocene England, FROST [in] Vertebrate Faunas English Eocene.

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*Lampris luna*, GUDGER 250.

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*Trachypterus iris*, MOURGUE 450.

#### LOPHOTIDAE.

*Lophotes cepedianus*, ANCONA [in] 190, 191.

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#### MACRORHAMPHOSIDAE.

*Notopogon schoteli* figs., MACDONAGH 411.

#### SYNGNATHIDAE.

*Syngnathus schlegeli soldatovi* subsp. n. Far East, SOLDATOV & LINDBERG Bull. Pac. Sci. Fish. Inst. 5 1930 p. 79 fig. 22; *S. phlegon*, ANCONA [in] 190, 191; †*S. albyi* figs., ERASMO 177.

*Festucalex* gen. n. type *Syngnathus cinctus*, WHITLEY Austr. Zool. 6 p. 312.

*Campichthys* subgen. n. (of *Festucalex*) type *Ichthyocampus tryoni*, *runa* sp. n. New South Wales, WHITLEY t.c. p. 313.

*Nerophis lumbriciformis*, KÜNNE [in] 190.

*Coelonotus liaspis* fig., FOWLER 212.

*Phyllopteryx lucasi* sp. n. W. Aus- tralia, WHITLEY Rec. Austr. Mus. 18 p. 102 pl. xv fig. 1.

*Hippocampus novae-hollandiae* = *H. whitei*, WHITLEY Austral. Zool. 6 p. 133; *H. brevirostris*, ANCONA [in] 190, 191.

*Farlapiscis* gen. n. type *Hippocampus breviceps*, WHITLEY t.c. p. 313.

#### BERYCOMORPHI.

†*Berycidarum parvulus* figs., WEILER 744.

†*Holocentroides* gen. n., *moldavicus* sp. n. Oligocene Rumania, PAUCA Bull. Acad. Roumaine 14 (1-2) p. 33 1 fig.

#### MONOCENTRIDAE.

*Cleidopus gloriamaris occidentalis* sub- sp. n. W. Australia, WHITLEY Austr. Zool. 6 p. 314.

#### HOLOCENTRIDAE.

*Holocentrus ittodai*, *diadema* figs., VASILIU 726.

#### MELAMPHAIDAE.

*Melamphaes* key to spp. p. 38, *M. macrocephalus* sp. n. Pacif. coast of Mexico p. 41 fig. 16, *bispinosus* descr. and fig. p. 43 fig. 17, PARR Bull. Bing- ham Ocean. Coll. 2 (4).

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#### ZEIDAE.

†*Zeus primaevus* figs., ERASMO 177.

*Zenopsis ocellatus* (?), SCHNAKENBECK 619.

*Prionolepis* gen. n., *hewitti* sp. n. S. Africa, SMITH Rec. Albany Mus. 4 p. 145 fig.



## CAPROIDAE.

*Capros aper*, BERTIN [in] 191;  
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## SERRANIDAE.

†*Otolithus* (*Serranidarum*) *curvidorsalis* p. 108 pl. i fig. 17, *planisulcatus* p. 108 pl. i fig. 18 spp. n. Eocene England, FROST [in] Vertebrate Faunas English Eocene.

†*Percichthys chibei* sp. n. Tertiary Japan, SAHEKI J. Geol. Soc. Tokyo 36 p. 23 pl. xviii fig. 2.

*Morone labrax*, *punctata*, HELDT [in] 190, 191.

*Therapon* key to spp., revision, FOWLER Bull. U.S. Nat. Mus. 100 (11) p. 325; *T. jarbua* young, DUNCKER & MOHR 166.

*Leisotherapon* subgen. n. (of *Therapon*) type *Datria plumbea*, FOWLER t.c. p. 353.

*Rhynchopelates* subgen. n. (of *Pelates*) type *Therapon oxyrhynchus*, FOWLER t.c. p. 363.

*Hapalogenys mucronatus*, FOWLER 207 p. 298 fig. 6.

*Siniperca roulei* sp. n. Hunan, China, Wu Contr. Biol. Lab. Sci. Soc. China 6 1930 p. 54 fig. 5; *S. elongata*, *obscura* figured, NICHOLS 475.

*Stereolepis inoko* sp. n. Japan, SCHMIDT Trans. Pacif. Comm. Acad. Sci. U.S.S.R. 2 p. 52 fig. 7.

*Epinephelus merra* fig., VASILIU 726.

*Serranus guttatus* fig., VASILIU 726; *S. cabrilla*, CHEVEY [in] 190; *S. scriba*, NINNI [in] 190, 191; *S. fasciatomaculatus*, FOWLER 207 p. 295 fig. 4.

*Centropristis hepatus*, NINNI [in] 190, 191.

*Anthias sacer*, NINNI [in] 190, 191.

*Neanthias* gen. n., *accraensis* sp. n. Gold Coast, NORMAN Ann. Mag. N.H. 7 p. 354 fig. 2.

*Callanthias peloritanus*, GALL [in] 190, 191.

*Diploprion bifasciatum*, FOWLER 207 p. 298 fig. 5.

*Grammistes sexilineatus* fig., VASILIU 726.

Revision of *Pseudochromidinae*, FOWLER Bull. U.S. Nat. Mus. 100 (11) p. 2.

*Dampiera* synopsis of Indo-Pacific spp. p. 5, *D. melanostigma* p. 16 figs., *bitaeniata* p. 18 fig. spp. n. Philippines etc., FOWLER t.c.

*Bartschiana* subgen. n. (of *Dampiera*) type *D. bitaeniata*, FOWLER t.c. p. 18.

*Ogilbyina* subgen. n. (of *Dampiera*) type *Dampiera longipinnis*, FOWLER t.c. p. 19.

*Devosina* subgen. n. (of *Pseudochromis*) type *Pseudochromis quinquedenatus*, FOWLER t.c. p. 26.

*Klunzingerina* subgen. n. (of *Pseudochromis*) type *Pseudochromis novae-hollandiae*, FOWLER t.c. p. 33.

*Pseudochromis* synopsis of spp. p. 19, *P. splendens* p. 35, *polynemus* p. 38 fig., *moorei* p. 39 fig. spp. n. East Indies, etc., FOWLER t.c.

*Pseudochromichthys* gen. n., *riukianus* sp. n. Riu-Kiu Is., SCHMIDT Trans. Pacif. Comm. Acad. Sci. U.S.S.R. 2 p. 180 fig. 1.

## PRIACANTHIDAE.

Of Philippines, etc., FOWLER 206 p. 64.

## CHILODIPTERIDAE.

*Apogon taeniatus* from Japan, SCHMIDT 613 p. 48; *A. thermalis*, DUNCKER & MOHR 166.

*Foa madagascariensis* sp. n. Madagascar, buccal incubation, PETIT Bull. Mus. Paris (2) 3 p. 91.

*Epigonus telescopus*, GALL [in] 190, 191.

## PERCIDAE.

*Perca fluviatilis* systematic position, POKROWSKY 540.

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*Latilus semifasciatus* sp. n. Gold Coast, NORMAN Ann. Mag. N.H. 7 p. 356 fig. 3.

## POMATOMIDAE.

*Pomatomus pedica* sp. n. Australia, WHITLEY Austr. Zool. 6 p. 316.

## CARANGIDAE.

*Naucrates angeli* sp. n. N.S. Wales, WHITLEY Austr. Zool. 6 p. 316.

*Regificola* gen. n. type *Seriola grandis*, WHITLEY t.c. p. 316.

*Usacaranx* gen. n. type *Caranx nobilis*, *U. georgianus wrighti* subsp. n. S. Australia, WHITLEY t.c. 316.

*Zamora* gen. n. type *Caranx hullianus*, WHITLEY Rec. Austr. Mus. 18 p. 108.

*Pantolabus* gen. n. type *Caranx parasitus*, WHITLEY t.c. p. 108 pl. xii fig. 1.

*Caranx trachurus* varieties, SCHNAKENBECK 620; *C. filigera* = *Citula gracilis*, WHITLEY 753 p. 108.

*Lichia glauca*, SIGALAS & CHAPHEAU 650.

#### BRAMIDAE.

*Pteraclis*, notes, WHITLEY 754; *P. fasciatus*, BORODIN 71 p. 84 pl. iv fig. 2.

#### CENTROPOMIDAE.

*Centropomus ensiferus* from W. Africa, FRASER-BRUNNER 220.

#### LUTJANIDAE.

Of Philippines etc., FOWLER Bull. U.S. Nat. Mus. 100 (11) p. 81.

*Lutjanus* synopsis of spp. p. 88, *L. palmeri* sp. n. Philippines p. 94, FOWLER t.c.; *L. russelli* fig., VASILIU 726; †*L. avus* sp. n. Oligocene Florida, GREGORY Bull. Florida Geol. Surv. 5 1930 p. 7 figs.

*Glabrilutjanus* subgen. n. (of *Lutjanus*), type *Mesoprion nematophorus*, FOWLER t.c. p. 95.

*Loxolutjanus* subgen. n. (of *Lutjanus*) type *Lutjanus erythropterus*, FOWLER t.c. p. 165.

*Macolor macularis* sp. n. E. Indies, Philippines, etc., FOWLER t.c. p. 181.

*Humefordia* nom. n. = *Fares* Jordan, Evermann & Tanaka nec Guichenot, WHITLEY Austr. Zool. 6 p. 334.

*Aphareus obtusirostris*, BORODIN 71 p. 85 pl. v fig. 2.

*Caesio xanthurus* from Japan, SCHMIDT 613 p. 63 fig. 9.

#### LOBOTIDAE.

*Lobotes surinamensis*, FOWLER 206 p. 44; GUDGER 249.

#### POMADASIDAE.

Of Philippines, etc., FOWLER Bull. U.S. Nat. Mus. 100 (11) p. 199.

*Microlabrichthys waitei* sp. n. E. Indies, Philippines, FOWLER t.c. p. 228 fig.

*Ctenoscolopsis* subgen. n. (of *Scolopsis*) type *Holocentrus ciliatus*, FOWLER t.c. p. 300.

*Pomadasyina* subgen. n. (of *Pomadasyus*) type *Anthias grunniens*, FOWLER t.c. p. 304.

#### SCIAENIDAE.

†*Diaphyodus sauvagei* figs., WHITE 750.

*Cynoscion arenarius* sp. n. U.S.A., *C. nothus regalis* fig., GINSBURG Bull. U.S. Bur. Fish. 45 p. 84 figs.

*Johnius birtwistlei* sp. n. Singapore, FOWLER Proc. Acad. N.S. Philad. 83 p. 446 fig.

*Zeluco* gen. n. type *Otolithus atelodus*, WHITLEY Austr. Zool. 6 p. 317.

#### MULLIDAE.

*Mullus surmuletus*, NINNI [in] 190, 191; *M. barbatus*, BERTIN [in] 191.

*Barbupeneus* gen. n. type *Upeneus signatus*, WHITLEY Austr. Zool. 6 p. 317.

*Caprupeneus* gen. n. type *Pseudupeneus jeffi*, WHITLEY t.c. p. 317.

*Upeneichthys lineatus*, WHITLEY t.c. p. 318.

#### LETHRINIDAE.

*Pentapus pleurostictus* sp. n. South Seas, DUNCKER & MOHR Mitt. zool. Mus. Hamburg 44 p. 64 fig. 3.

#### SPARIDAE.

Development of opisthotic, TOMIYAMA 712.

*Dentex* Spanish spp. figured, REY 570; *D. nufar*, FOWLER 207 p. 298 fig. 7; †*D. gracilis* fig., WEILER 744.

*Synagris flavolinea* sp. n. China, FOWLER Hong Kong Nat. 2 p. 299 fig. 8.

*Pagellus erythrinus*, GALL [in] 190, 191; *P. acarne*, *centrodontus*, *bogaraveo*, GALL [in] 191; *P. mormyrus*, NINNI [in] 190, 191.

*Cantharus lineatus*, GALL [in] 190; NINNI [in] 191.

†*Box gortanii* sp. n. Mio-Pliocene Italy, ERASMO Atti Acc. Sci. fis. mat. Napoli 18 1930 p. 64 pl. iii figs. 6, 7.

†*Sargus rondoletii*, SARRA 601.

*Sparus* taxonomy, WHITLEY Austr. Zool. 6 p. 318.

*Pagrus pagrus*, GALL [in] 190, 191.

*Chrysophrys guttulatus*, WHITLEY t.c. p. 319; *C. aurata*, NINNI [in] 191.

*Aurata aurata*, GALL [in] 190.

*Roughleyia* gen. n., type *Chrysophrys australis* p. 318, *tarwhine* sp. n. N.S. Wales p. 319, WHITLEY t.c.

†*Trigonodon oweni*, SARRA 601.

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Key to genera, NORMAN Ann. Mag. N.H. 7 p. 359.

*Coleosmaris* gen. n., *nigricauda* sp. n. Gold Coast, NORMAN t.c. p. 359 fig. 4.

#### PEMPHERIDAE.

Of Philippines etc., FOWLER Bull. U.S. Nat. Mus. 100 (11) p. 45.

*Pempheris* synopsis of spp. p. 50, *itoi* sp. n. East Indies, FOWLER t.c. p. 61 fig.; *P. vanicolensis* from Japan, SCHMIDT 613 p. 45 fig. 6.

#### SCORPIDIDAE.

*Atypichthys mado* sp. n. Australia, etc., WHITLEY Austr. Zool. 6 p. 319.

*Neoscorpis* gen. n. type *Scorpis lithophilus*, SMITH Rec. Albany Mus. 4 p. 150.

#### CYPHOSIDAE.

*Segutilum* gen. n. type *Pimelepterus sydneyanus* p. 319, *klunzingeri* sp. n. W. Australia p. 320, WHITLEY Austr. Zool. 6.

*Leptokyphosus* subgen. n. (of *Segutilum*) type *Kyphosus gibsoni*, WHITLEY t.c. p. 320.

*Kyphosus cinerascens* = *Opisthistius squamosus*, WHITLEY t.c. p. 320.

#### GIRELLIDAE.

*Girellipiscis* gen. n. type *Girella elevata*, WHITLEY Austr. Zool. 6 p. 320.

*Iredalella* gen. n. type *Girella cyanea*, WHITLEY t.c. p. 320.

#### CHAETODONTIDAE.

*Chaetodon bella-maris*, FOWLER 207 p. 302 fig. 9; *C. corallicola*, *miliaris* figs., FOWLER 212.

*Paracanthochaetodon modestus*, SCHMIDT & LINDBERG 615 p. 1142 fig.

*Microcanthus joyceae* E. Australia p. 111 pl. xiii figs. 4-5, *howensis* Lord Howe I. p. 112 pl. xiii fig. 2 spp. n.; *M. vittatus* notes p. 112 pl. xiii fig. 3; WHITLEY Rec. Austr. Mus. 18.

*Vinculum kershawi* sp. n. Australia, WHITLEY Austr. Zool. 6 p. 321.

#### CICHLIDAE.

*Tilapia franchettii* sp. n. Eritrea, VINCIGUERRA Ann. Mus. Stor. nat. Genova 55 p. 105 fig.; *T. nadiniae* sp. n. L. Tanganyika, BORODIN Proc. New Engl. Zool. Cl. 12 p. 54; *T. alleni* p. 238 fig. 1, *deschauensei* p. 240 fig. 2 spp. n. Bechuanaland, FOWLER Proc. Acad. N.S. Philad. 83.

*Paratilapia deschauensei* sp. n. Bechuanaland, FOWLER t.c. p. 244 fig. 3.

*Pelmatochromis loveridgei* p. 51, *tanganyicae* p. 52, *zenotilapiaformis* p. 53 spp. n. L. Tanganyika, BORODIN t.c.

*Haplochromis centropristoides* p. 3 fig. 1, *boultoni* p. 4 fig. 2 spp. n. L. Nyassa, NICHOLS & LA MONTE Amer. Mus. Novit. 451; *H. fasciatus* L. Tanganyika p. 49, *tenuis* L. Victoria p. 50 spp. n., BORODIN t.c.

*Julidochromis macrolepis* sp. n. L. Tanganyika, BORODIN t.c. p. 51.

*Lethrinops* synopsis of spp. p. 137, *L. variabilis*, *litoris* p. 139, *trilineata*, *microstoma*, *parvidens* p. 141, *longimanus*, *cyrtotus*, *macracanthus* p. 145, *alta* p. 146, *lunaris*, *oculata* p. 148, *furcifer*, *furcicauda* p. 149, *christyi*, *laticeps* p. 150 spp. n. Nyassa, TREWAVAS Ann. Mag. N.H. 7.

*Lamprologus finalimus* sp. n. Lake Tanganyika NICHOLS & LA MONTE Amer. Mus. Nov. 478 p. 1 fig. 1.

*Crenilichla lacustris* subspp. *scotti* et *multidens*, MACDONAGH 412.

*Apistogramma parva* sp. n. S. America, AHL Sitzber. Ges. natuf. Fr. 1931 p. 210.

#### CIRRHITIDAE.

*Cirrhitoides bimacula* fig., FOWLER 212.

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*Chironemus aboriginalis* sp. n. N.S. Wales, WHITLEY Austr. Zool. 6 p. 321.

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*Parma unifasciata*, WHITLEY 754 p. 154.

*Abudegduf antierius* fig., VASILIU 726.

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†*Phyllodus toliapicus* figs., WHITE 750.

*Halinanodes* gen. n. type *Halichoeres leucostigma*, WHITLEY Rec. Austr. Mus. 18 p. 113.

*Anampses*, *Pseudanampses* notes, WHITLEY t.c. p. 114.

*Gomphosus viridis* fig., VASILIU 726; †*G. globosus forma* n. Silurian Esthonia p. 83 pl. vi figs. 41–43, pl. viii fig. 4, *G. sandelensis*, *volborthi* figs., HOPPE *Palaeontographica* 10.

*Thalassoma cupido bipunctatum* var. n. Ceylon, VASILIU Jena Z. Naturw. 65 p. 349 pl. x fig. 11.

*Hospilabrus* nom. n. = *Malapterus* Cuv. & Val. nec Jarocki, WHITLEY Austr. Zool. 6 p. 334.

*Ctenocorissa* gen. n. type *Labrus pictus*, WHITLEY t.c. p. 323.

*Cymolutes tateyamaensis* sp. n. Japan, SAKAMOTO J. Imp. Fish. Inst. Tokyo 26 1930 p. 11 fig. 1.

*Novaculichthys woodi* from Japan, SCHMIDT 613 p. 81 fig. 11.

*Labrus berggylta*, *mixtus*, GALL [in] 190, 191.

*Pseudolabrus cyprinaceus*, WHITLEY 754 p. 155.

## AMMODYTIDAE.

*Herklotsina* gen. n., *viridianguilla* sp. n. China, FOWLER Hong Kong Nat. 2 p. 311 fig. 13.

## BATHYMASTERIDAE.

*Bathymaster derjugini* sp. n. Peter the Great Bay, SOLDATOV & LINDBERG Bull. Pac. Sci. Fish. Inst. 5 1930 p. 478 fig. 65.

## URANOSCOPIDAE.

*Uranoscopus scaber* autonomic nervous system, YOUNG 785.

## BOVICHTHYIDAE.

*Bovichthys argentinus* sp. n. Patagonia, MACDONAGH Not. Prel. Mus. La Plata 1 p. 99.

## NOTOTHENIIDAE.

*Notothenia patagonica* sp. n. Patagonia, MACDONAGH Not. Prel. Mus. La Plata 1 p. 100.

## CHIASMODONTIDAE.

*Dolichodon* gen. n. p. 45, *normani* sp. n. Pacif. coast of Mexico p. 46 fig. 18, PARR Bull. Bingham Ocean. Coll. 2 (4).

*Hemicyclodon* gen. n. type *Dolichodon normani*, PARR Copeia 1931 p. 162.

## TEUTHIDOIDEA.

## TEUTHIDIDAE.

*Acanthurus gahm* var. *nigricauda*, DUNCKER & MOHR 166.

*Burobulla* gen. n. type *Xesurus maculatus*, WHITLEY Austr. Zool. 6 p. 321.

†*Apostasis capellinii* sp. n. Miocene Italy, ERASMO Atti Acc. Sci. fis. mat. Napoli 18 1930 p. 68 pl. iii figs. 8, 9.

## TRICHIUROIDEA.

## GEMPYLIDAE.

*Bipinnula violacea*, SIGALAS 646.

*Jordanidia prometheoides*, SCHMIDT 613 p. 41 fig. 5.

*Thyrsites atun*, WHITLEY 754 p. 151

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†*Lepidopus albyi* figs., ERASMO 178.

†*Trichiurides* cf. *sagittidens* figs., WHITE 750.

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## SCOMBRIDAE.

Algerian spp. desc. and fig., DIEUZEIDE 158.

†*Ardiodus* gen. n., *marriotti* sp. n. Eocene England, WHITE Vertebrate Faunas English Eocene p. 89 pl. i figs. 4–5.

*Thunnus thynnus*, HELDT [in] 190, 191; figs., FRADE 217; in Corsica, CARABIN 105.

*Neothunnus albacora*, FRADE [in] 190 figs., FRADE 217.

*Parathunnus obesus*, FRADE [in] 190; figs., FRADE 217.

†*Scombramphoden benedeni*, WEILER 743.

#### ISTIOPHORIDAE.

*Istiopomax* gen. n., *australis* sp. n. Australia, WHITLEY Austr. Zool. 6 p. 321; 754 p. 148.

#### XIPHIIDAE.

*Xiphias gladius*, SANZO [in] 190; †*X. cf. gladius* figs., MATSUMOTO 426; †*X. drydeni* sp. n. Miocene U.S.A., BERRY Washington Acad. Sci. 20 1930 p. 42 figs. 1-2.

#### GOBIOIDEA.

Of Philippines, etc., HERRE Monogr. Bur. Sci. Manila 23 1927.

#### ELEOTRIDAE.

*Boroda* gen. n., *albo-oculata*, *expatria* spp. n. Philippines, HERRE Monogr. Bur. Sci. Manila 23 1927 p. 58 pl. v fig. 1.

*Bunaka* gen. n. p. 60, *pinguis* sp. n. Philippines p. 61 pl. xxvii fig. 2, HERRE t.c.

*Eviota sealei* sp. n. Philippines, HERRE t.c. p. 73.

*Gobiomorphus illotus* sp. n. Philippines, HERRE t.c. p. 45 pl. iii fig. 4.

*Hypseleotris* key to Philippine spp. p. 37, *agilis* p. 38 pl. ii fig. 3, *bipartita* p. 39 pl. iii fig. 1, *pangel* p. 42 pl. iii fig. 2 spp. n. Philippines, HERRE t.c.

*Meuschenula* gen. n. type *Agonostoma darwiniense*, WHITLEY Austr. Zool. 6 p. 325.

*Paloa* gen. n., *polylepis* sp. n. Philippines, HERRE t.c. p. 56 pl. iv fig. 3.

*Parviparma* gen. n. p. 81, *straminea* sp. n. Philippines p. 82 pl. vi fig. 2, HERRE t.c.

*Ptereleotris dispersus* sp. n. Philippines, HERRE t.c. p. 83 pl. vi fig. 3.

#### GOBIIDAE.\*

Revision of genera, KOUMANS 384; synopsis of European gen. and spp., BUEN Bull. Soc. Sci. nat. Maroc. 10 p. 123; Notas Res. Min. Marin. (II) 54 p. 50; of Spain, BUEN t.c. p. 61.

\* Owing to the large number of new genera and species, the names have been arranged in alphabetic instead of in systematic order.

*Aboma tsinanensis* sp. n. China, FOWLER Peking N.H. Bull. 5 (2) 1930 p. 30 fig. 2.

*Acanthogobius jacoti* sp. n. China, FOWLER t.c. p. 29 fig. 1.

*Amblygobius* key to Philippine spp. p. 227, *A. inornatus* p. 228, *linki* p. 231 pl. xviii fig. 4 spp. n. Philippines, *A. perpusillus buanensis* var. n. Philippines p. 230 pl. xviii fig. 2, HERRE Monogr. Bur. Sci. Manila 23 1927.

*Amoya* gen. n. type *Gobius brevirostris*, HERRE t.c. p. 225.

*Aparrius moloanus* sp. n. Philippines, HERRE t.c. p. 207 pl. xvi fig. 3.

*Aphyia minuta*, BUEN Not. Res. Min. Marin. (II) 54 p. 4 figs.

*Aphyogobius* nom. n. = *Latrunculus* Günther nec Gray, WHITLEY Austr. Zool. 6 p. 334.

*Apocryptes pellegrini* sp. n. China, WU Contr. Biol. Lab. Sci. Soc. China 7 p. 48 fig. 8.

*Apocryptichthys sericus* sp. n. China, HERRE t.c. p. 264 pl. xxi fig. 1; *A. cantor* from Siam, SMITH 660.

*Apocryptodon montalbani* p. 277 pl. xxii fig. 2, *sealei* p. 278, *taylori* p. 279 pl. xxii fig. 3 spp. n. Philippines, HERRE t.c.; *A. malcolmi* sp. n. Siam, SMITH Proc. U.S. Nat. Mus. 79 (7) p. 47 fig. 22.

*Bathygobius bravo* sp. n. Philippines, HERRE t.c. p. 112 pl. viii fig. 1; *B. saporator* figs., BEEBE 45.

*Brachyamblyopus olivaceus* sp. n. Philippines, HERRE t.c. p. 329 pl. xxv fig. 3.

*Cassigobius* nom. n. = *Lophiogobius* Günther nec Gill, WHITLEY t.c. p. 334.

*Chaeturichthys tanakae* sp. n. Japan, SCHMIDT Trans. Pacif. Comm. Acad. Sci. U.S.S.R. 2 p. 135 fig. 23.

*Chaparrudo* gen. n. type *Gobius flavescens*, BUEN t.c. p. 15.

*Chlamydes leytenensis* sp. n. Philippines, HERRE t.c. p. 118 pl. viii fig. 3.

*Chloëa bungei* sp. n. Korea, SCHMIDT Bull. Acad. Leningrad 1931 p. 119 fig. 5.

*Cingulogobius* gen. n. type *Pleurogobius boulengeri*, HERRE t.c. p. 201.

*Creisson sealei* sp. n. Siam, SMITH Proc. U.S. Nat. Mus. 79 (7) p. 41.



*Cristatogobius* gen. n., *lophius* sp. n. Philippines, HERRE t.c. p. 170 pl. xiii fig. 1.

*Cryptocentrus* key to Philippine spp. p. 239, *C. cebuanus* p. 240 pl. xix fig. 2, *vagus* p. 243 pl. xix fig. 3 spp. n. Philippines etc., HERRE t.c.; *C. leonis* sp. n. Siam, SMITH t.c. p. 46 fig. 21.

*Crystallogobius* notes, BUEN t.c. p. 15.

*Drombus whitleyi* nom. n. = *Gobius filamentosus* Sauvage nec Risso, FOWLER Mem. Bishop Mus. 11 p. 362.

*Euchoristopus kalolo regius* subsp. n. N.W. Australia, WHITLEY t.c. p. 326.

*Eugnathogobius* gen. n., *microps* sp. n. Siam, SMITH t.c. p. 37 fig. 18.

*Galera* gen. n. p. 103, *producta* sp. n. Philippines p. 104 pl. vii fig. 3, HERRE t.c.

*Gnatholepis* key to Philippine spp. p. 127, *G. volcanus* p. 131, *gemmeus* p. 135 pl. ix fig. 3 spp. n. Philippines, HERRE t.c.; *G. calliurus* from Siam, SMITH 660.

*Gobiella* gen. n., *pellucida* sp. n. Siam, SMITH t.c. p. 33 fig. 16.

*Gobiodon fulvus* sp. n. Philippines, HERRE t.c. p. 292.

*Gobiosoma insignum* sp. n. Philippines, HERRE t.c. p. 289 pl. xxvii fig. 3.

*Gobius boekeri* sp. n. Brazil, AHL SitzBer. Ges. natuf. Fr. 1931 p. 405 fig.; *G. hoepplii* sp. n. China, WU Contr. Biol. Lab. Sci. Soc. China 7 p. 38 fig. 6; *G. cheni* sp. n. China, NICHOLS Amer. Mus. Nov. 499 p. 1; *G. colonianus*, *fagei*, *minutus*, *vittatus*, BUEN [in] 191; †*G. ehrmanni*, *xiphurus* figs., ERASMO 178; *G. (Acanthogobius) ommaturus breviodontus* var. n. China, WU t.c. p. 44 fig. 7; *G. (Macrogobius) cobitis* p. 20 figs., *paganellus* p. 23 fig., *cruentatus* p. 27 figs.; *G. (Ponticola) ratan* p. 32 fig., *cephalarges* p. 34, *kessleri* p. 35; *G. (Apollonia) melanostomus* p. 36 descr.; BUEN t.c.

*Herrea* gen. n., *formosa* sp. n. Siam, SMITH t.c. p. 40.

*Herreolus* nom. n. for *Herrea* Smith preocc., SMITH J. Siam. Soc. Nat. Hist. 8 p. 190.

*Ithaya* gen. n., *nuda* sp. n. Philippines, HERRE t.c. p. 288 pl. xxiii fig. 2.

*Lebetus* notes, WHITLEY 754 p. 155.

*Lesueurina sanzoi*, BUEN [in] 190.

*Lophogobius* notes, BUEN t.c. p. 44.

*Macgregorella intonsa* sp. n. Philippines, HERRE t.c. p. 100 pl. vii fig. 2.

*Mesogobius batrachocephalus*, BUEN t.c. p. 38 fig.

*Microsycidium atro-purpureum* p. 296, *formosum* p. 297 pl. xxiii fig. 3, *pulchellum* p. 299 pl. xxiii fig. 4 spp. n. Philippines, HERRE t.c.

*Mirogobius* gen. n. p. 91, *stellatus* p. 92 pl. vi fig. 4, *lacustris* p. 93 spp. n. Philippines, HERRE t.c.

*Mucogobius gobiosoma* sp. n. S.W. Australia, WHITLEY t.c. p. 326.

*Odontogobius bynoensis*, BUEN t.c. p. 42 fig.

*Oxyurichthys* key to Philippine and China Sea spp. p. 249, *O. visayanus* p. 254, *oculomirus* p. 256, *viridis* p. 260 spp. n. Philippines, etc., HERRE t.c.

*Paenapocryptes* subgen. n. (of *Parapocryptes*) type *P. mindanensis* sp. n. Philippines, HERRE t.c. p. 262 pl. xx fig. 4.

*Pandaka* gen. n. p. 196, *pusilla* p. 197 pl. xv figs. 1-2, *pygmaea* p. 198 pl. xv fig. 3 spp. n. Philippines, HERRE t.c.

*Paragobiodon kerri* sp. n. Siam, SMITH Proc. U.S. Nat. Mus. 79 (7) p. 42 fig. 20.

*Parvigobius immeritus*, WHITLEY 753 p. 122.

*Pipidonia* gen. n., *quinquecincta* sp. n. Siam, SMITH t.c. p. 39 fig. 19.

*Pogonogobius* gen. n. type *Gobius planifrons*, SMITH t.c. p. 37.

*Proterorhinus marmoratus*, *semilunaris* compared, CHIOCHKOFF 133.

*Pseudaphya ferreri* descr. p. 10 figs., *P. pelagica* nom. n. = *Aphyia ferreri* Mortara nec De Buen & Fage p. 14, BUEN t.c.

*Pseudotrypauchen multiradiatus* sp. n. Sumatra, HARDENBERG Treubia 13 p. 146.

*Redigobius* gen. n. type *Gobius sternbergi*, HERRE t.c. p. 98.

*Rhinogobius* key to Philippine spp. p. 177, *R. decoratus* p. 181 pl. xiii fig. 3, *schultzei* p. 185, *multifasciatus* p. 190 pl. xiv fig. 1, *suluensis* p. 193 pl. xiv fig. 3 spp. n. Philippines, HERRE t.c.;

*R. laddi* sp. n. Fiji, FOWLER Mem. Bishop Mus. 11 p. 362 fig. 6; *R. similis* p. 43, *atripinnatus* p. 45 spp. n. Siam, SMITH t.c.; *R. simulans* nom. n. = *R. similis* Smith nec Gill, SMITH Copeia 1931 p. 64.

*Scartelaos viridis* from Siam, SMITH 660.

*Sericagobioides* gen. n., *lighti* sp. n. China, HERRE t.c. p. 336 pl. xxvi fig. 2.

*Sicyopterus* key to Philippine spp. p. 303, *S. lacrymosus* p. 303 pl. xxiv fig. 1, *crassus* p. 307 pl. xxiv fig. 2, *fulig* p. 309, *extraneus* p. 311, *panayensis* p. 313 figs. spp. n. Philippines, HERRE t.c.

*Stomogobius* nom. n. = *Orthostomus* Kner nec Ehrenberg, WHITLEY t.c. p. 334.

*Taenioides limboonkengi* sp. n. China, WU t.c. p. 51 fig. 9; *T. cirratus* from Siam, SMITH 660.

*Tamanka* gen. n. p. 220, *siitensis* p. 220 pl. xvii fig. 3, *tagala* p. 222, *umbra* p. 223, *bivittata* p. 224 pl. xvii fig. 4 spp. n. Philippines, HERRE t.c.

*Thaigobiella* gen. n., *sua* sp. n. Siam, SMITH Proc. U.S. Nat. Mus. 79 (7) p. 35 fig. 17.

*Tigrigobius* subgen. n. (of *Gobiosoma*) type *Gobiosoma macrondon*, FOWLER Proc. Acad. N.S. Philad. 83 p. 401.

*Triacnopogon microsquamis* sp. n. China, WU Bull. Mus. Paris (2) 3 p. 220.

*Tridentiger* key to species, WU 770.

*Trypauchenichthys sumatrensis* sp. n. Sumatra, HARDENBERG t.c. p. 146.

*Tukugobius* gen. n. type *Rhinogobius carpenteri* p. 119, *T. bucculentus* p. 121 pl. viii fig. 4, *philippinus* p. 124 spp. n. Philippines, HERRE t.c.

*Vaimosa* key to Philippine spp. p. 142, *V. macronathos* p. 145 pl. x fig. 2, *piapensis* p. 147 pl. x fig. 3, *rivalis* p. 149 pl. xi fig. 1, *bikolana* p. 151 pl. xi fig. 2, *hapanga* p. 152 pl. xi fig. 3, *tessellata* p. 153 pl. xii fig. 1, *villa* p. 154 pl. xii fig. 2 spp. n. Philippines, HERRE t.c.

*Zebrus* subgen. n. (of *Gobius*) type *Gobius zebrus*, BUEN Bull. Soc. Sci. nat. Maroc 10 p. 135.

## CALLIONYMOIDEA.

### CALLIONYMIDAE.

†*Callionymus festivus* figs., ERASMO 178.

*Repomucenus* gen. n. type *Callionymus calcaratus*, WHITLEY Austr. Zool. 6 p. 323.

*Foetorepus* gen. n. type *Callionymus calauropomus*, WHITLEY t.c. p. 323.

*Synchiropus ornatus* sp. n. China, FOWLER Hong Kong Nat. 2 p. 308 fig. 12.

*Yerutius* gen. n. type *Callionymus apricus*, WHITLEY Rec. Austr. Mus. 18 p. 115.

## BLENNIOIDEA.

### BLENNIIDAE.

Biometric analysis, TIRELLI 711.

*Blennius fascigula*, SMITH 668 p. 152 fig.

*Antennablennius* subgen. n. type *Blennius hyphenetes*, FOWLER Proc. Acad. N.S. Phil. 83 p. 245.

*Poroaliticus* gen. n., *sewalli* sp. n. Trinidad, FOWLER t.c. p. 403 fig. 4.

*Pictiblennius iredalei* sp. n. N.S. Wales, WHITLEY Austr. Zool. 6 p. 323.

### NOTOGRAPTIDAE.

*Notograptus livingstonei* sp. n. W. Australia, WHITLEY Rec. Austr. Mus. 18 p. 120.

### CLINIDAE.

*Clinus agilis* sp. n. S. Africa, SMITH Rec. Albany Mus. 4 p. 154 pl. xvi.

*Brannerella guttata* sp. n. Trinidad, FOWLER Proc. Acad. N.S. Philad. 83 p. 401 fig. 3.

*Petrates sellularius* sp. n. N.S. Wales, WHITLEY Austr. Zool. 6 p. 323.

*Vauchusella* gen. n. type *Tripterygium annulatum*, WHITLEY t.c. p. 324.

*Verconectes* gen. n. type *Trianectes bucephalus*, WHITLEY t.c. p. 324.

### STICHAETIDAE.

*Stichaeus elongatus* sp. n. Japan, SAKAMOTO J. Imp. Fish. Inst. Tokyo 26 1930 p. 15 fig. 1.

*Cryptacanthoides* **gen. n.** p. 482, *bergi* **sp. n.** Peter the Great Bay p. 484 figs. 66-67, SOLDATOV & LINDBERG Bull. Pac. Sci. Fish. Inst. 5 1930.

## PHOLIDIDAE.

*Bryozoichthys* **nom. n.** for *Bryolophus* Jordan & Snyder *nec* Ehrenberg, WHITLEY Austr. Zool. 6 p. 334.

## ZOARCIDAE.

*Zoarces tangwangi* **sp. n.** China, Wu Contr. Biol. Lab. Sci. Soc. China 6 1930 p. 60 fig.

*Pachycarichthys* **nom. n.** = *Pachycara* Zugmayer *nec* Solier, WHITLEY Austr. Zool. 6 p. 334.

*Davidjordania* **gen. n.** type *Lycenchelys lacertinus*, POPOV C.R. Acad. Sci. U.R.S.S. 1931 p. 212.

## OPHIDIOIDEA.

## OPHIDIIDAE.

†*Ophidium* (?) *longipinnatus* **sp. n.** Oligocene Rumania, PAUCA Bull. Acad. Roumaine 14 (1-2) p. 32 1 fig.

## STROMATEOIDEA.

## STROMATEIDAE.

*Centrolophus britannicus*, DUBALEN 162; *C. niger*, CHABANAUD & TRÉGOUBOFF 117.

*Nomeus dyscritus* **sp. n.** E. Australia, WHITLEY Austr. Zool. 6 p. 315.

*Stromateoides argenteus*, FOWLER 207 p. 292 fig. 3.

## OPHIOCEPHALOIDEA.

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*Ophiocephalus* a synonym of *Channa*, MYERS & SHEPOVALOV 463; *O. punctatus* breeding, RAO & SESHACHAR 559.

## ANABANTOIDEA.

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*Macropodus viridi-auratus* figs., HENZELMANN 283.

*Betta splendens* figs., HENZELMANN 282.

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*Mugil cephalus* and *haematochilus* compared, JACOT 347; *M. longimanus*, FOWLER 207 p. 290 fig. 2.

*Liza borealis* (= *Mugil haematochilus*) **sp. n.** Japanese Seas to Vladivostock, POPOV Trav. Sta. Biol. Sebastopol 2 1930 p. 80 pl. ii fig. 1 pl. iv fig. 1 (see also p. 119); notes, SOLDATOV & LINDBERG 670 p. 575.

## ATHERINIDAE.

*Atherina pontica caspia* in fresh-water, BULGAKOV 92; *A. hepsetus, boyeri*, NINNI [in] 190, 191.

*Basilichthys bonariensis* *varr. argentinensis et platensis, smitti, incisus*, fig., LAHILLE 389.

*Chirostoma samani* **sp. n.** Mexico, TERRON An. Inst. Biol. Mexico 2 p. 241 figs. 2-4.

*Menidia thomasi* **sp. n.** Uruguay, MEINKEN Bl. Aquarien. 42 p. 377 fig.

*Rheocloides* **gen. n.**, *pellegrini* **sp. n.** Madagascar, NICHOLS & LA MONTE Amer. Mus. Nov. 508 p. 1 fig. 1.

## SCLEROPAREI.

## SCORPAENIDAE.

*Scorpaena neglecta*, FOWLER 207 p. 302 fig. 10.

*Ruboralga* **gen. n.** type *Scorpaena jacksoniensis*, WHITLEY Austr. Zool. 6 p. 326.

*Sebastes (Acutimentum) nigricans* **sp. n.** Japan, SCHMIDT Trans. Pacif. Comm. Acad. Sci. U.S.S.R. 2 p. 97 fig. 13.

*Lythrichthys viviparus* **sp. n.** Japan, SCHMIDT t.c. p. 106 fig. 17.

*Ebrosia pavo* **sp. n.** Japan, SCHMIDT t.c. p. 109 fig. 18.

*Tetraroge albifrons* **sp. n.** New Guinea, DUNCKER & MOHR Mitt. Zool. Mus. Hamburg 44 p. 70.

*Apistus jenynsii* = *Gymnapistes marmoratus*, WHITLEY 752 p. 313.

*Amblyapistus marleyi*, SMITH 668 p. 156.

## TRIGLIDAE.

*Trigla lyra*, SCHNAKENBECK 619.

*Lepidotrigla alata*, FOWLER 207 p. 305 fig. 11; *L. aspera*, GALL [in] 190, 191.

*Curru piscis* gen. n., *volucer* sp. n. N.S. Wales, WHITLEY Austr. Zool. 6 p. 327.

*Vexillitrigla* nom. n. = *Bellator* Jordan & Evermann nec Boie, WHITLEY t.c. p. 327.

*Triscurricthys* nom. n. = *Merulinus* Jordan & Evermann nec Ehrenberg, WHITLEY t.c. p. 328.

## SYNANCHIDAE.

*Caracanthus zeylonicus*, SMITH 668 p. 157.

*Glyptauchen insidiator* sp. n. N.S. Wales p. 118 pl. xiv, *G. insidiator mirandus* Tasmania p. 120, *panduratus deruptus* S. Australia p. 117 subsp. n., WHITLEY Rec. Austr. Mus. 18.

## PLATYCEPHALIDAE.

Key to subfamilies, WHITLEY 754 p. 157.

*Cacumen* gen. n. type *Platycephalus speculator*, WHITLEY Austr. Zool. 6 p. 326.

*Planiprora* gen. n. type *Platycephalus fuscus*, WHITLEY t.c. p. 327.

*Leviprora* gen. n. type *Platycephalus inops*, WHITLEY t.c. p. 327.

*Trudis* gen. n. type *Platycephalus bassensis*, WHITLEY t.c. p. 327; *T. bassensis, caeruleopunctatus*, WHITLEY 754 p. 157 pl. xxi fig. 2-4.

*Longitrudis* gen. n. type *Platycephalus longispinis*, WHITLEY t.c. p. 327; *L. longispinis*, WHITLEY 754 p. 159 pl. xxi fig. 1.

*Neoplatycephalus castelnaui*, WHITLEY 753 p. 116 pl. xiii fig. 1; *N. macrodon*, WHITLEY 754 p. 159 pl. xxi figs. 5-6.

## COTTIDAE.

*Radulinopsis* gen. n. p. 183, *derjavini* p. 185 figs. 30-31, *derjugini* p. 189 figs. 32-33 spp. n. Peter the Great Bay, SOLDATOV & LINDBERG Bull. Pac. Sci. Fish. Inst. 5 1930.

*Eurymen bassargini* sp. n. Japanese Sea, SOLDATOV & LINDBERG t.c. p. 286 fig. 49.

*Cottus gobio pellegrini* nat. n. Czechoslovakia, VLADYKOV Mem. Soc. zool. Fr. 29 p. 253 fig. 28.

*Malacocottus gibber* sp. n. Japan, SAKAMOTO J. Imp. Fish. Inst. Tokyo 26 1930 p. 16 fig. 2.

†*Lepidocottus multipinnatus* figs., ERASMO 178.

## AGONIDAE.

*Agonus cataphractus*, EHRENBAUM [in] 190.

## MARUKAWICHTHIDAE.

*Marukawichthys* gen. n., *ambulator* sp. n. Japan, SAKAMOTO J. Imp. Fish. Inst. Tokyo 26 p. 54 fig. 1.

## CYCLOPTERIDAE.

Synopsis of genera, POPOV Bull. Acad. Sci. U.R.S.S. 1931 p. 97.

*Cyclopsis* gen. n. p. 86, *tentacularis* sp. n. Okhotsk Sea p. 87 figs. 1-2, POPOV t.c.

*Cyclopteroopsis* key to spp. p. 316, *C. lindbergi* Tartar Strait p. 318 fig. 51, *popovi* Okhotsk Sea p. 320 fig. 52 spp. n., SOLDATOV & LINDBERG Bull. Pac. Sci. Fish. Inst. 5 1930; *C. bergi* sp. n. Okhotsk Sea, POPOV t.c. p. 90 fig. 3.

*Eumicrotremus soldatovi* sp. n. Okhotsk Sea p. 94 fig. 4, *E. birulai. orbis, derjugini ochotensis* descr., POPOV t.c.; *E. soldatovi*, SOLDATOV & LINDBERG 670 p. 310 fig. 50.

## LIPARIDAE.

*Neoliparis mednius* sp. n. Far East, SOLDATOV & LINDBERG Bull. Pac. Sci. Fish. Inst. 5 1930 p. 339 fig. 55.

*Liparis* key to spp. of Far East p. 343, *L. niger* Peter the Great Bay p. 352 fig. 56, *dulkeiti* Kamchatka p. 356 fig. 57, *tartaricus* p. 361 pl. xvi, *brashnikovi* p. 365 pl. xvi, *dubius* p. 366 fig. 58 Peter the Great Bay and Tartar Strait spp. n., SOLDATOV & LINDBERG t.c.; *L. vulgaris, montagui*, EHRENBAUM [in] 190.

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*Pleuronectes* modern nomenclature of Linnean spp., CHABANAUD 112.

## BOTHIDAE.

*Istiiorhombus* gen. n. type *Pseudorhombus spinosus*, *I. spinosus normani* subsp. n. Queensland, WHITLEY Austr. Zool. 6 p. 322.

*Spinirhombus* = *Pseudorhombus*, NORMAN 488.

*Pseudorhombus javanicus*, *oligodon*, *cinnamoneus*, *pentophthalmus* notes, NORMAN 488; *P. natalensis*, NORMAN 486; *P. jenynsii*, WHITLEY t.c. p. 313; *P. anomalus* fig., WHITLEY t.c. p. 322 pl. xxv.

*Taeniopsetta radula*, NORMAN 488.

*Chopinopsetta* nom. n. = *Eucitharus* Gill nec Fischer, WHITLEY t.c. p. 322.

*Citharichthys* Western Atlantic spp., *C. crossotus atlanticus* subsp. n. W. Atlantic p. 16, PARR Bull. Bingham Ocean. Coll. 4 (1); *C. rathbuni*, *evermanni* synonyms of *C. arenaceus*, NORMAN 486.

*Etropus* = *Citharichthys*, PARR 510.

*Caulopsetta* = *Arnoglossus*, NORMAN 488.

*Arnoglossus wakiyai* sp. n. Korea, SCHMIDT C.R. Acad. Leningrad 1931 p. 313 fig.

*Psettina* (= *Crossolepis*), *P. iijimae*, NORMAN 488.

*Crossorhombus azureus* (= *Scaeops kobensis*, *Platophrys microstoma*), NORMAN 488.

*Engyprosonon fijiensis* sp. n. Fiji, NORMAN Ann. Mag. N.H. 8 p. 508.

*Bothus mellissi* sp. n. St. Helena and Ascension, *B. mancus* notes, NORMAN t.c. p. 509.

*Parabothus* gen. n. type *Arnoglossus polylepis*, NORMAN t.c. p. 600.

*Trachypterophrys raptator* = *Chascanopsetta lugubris*, NORMAN 488.

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# XIV. AMPHIBIA AND REPTILIA.

ARRANGED BY

MALCOLM A. SMITH, M.R.C.S., L.R.C.P.

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*Hyperolius*, genus reviewed, 96 spp. described as new, 62 of them from single examples, 184 spp. keyed, most of them figd. in AHL 5, *H. angolanus*, nom. nov. for *Rappia platyceps* var. *angolensis* Ferreira, *H. vermicularis*, nom. nov. for *H. vermiculatus* Peters, *H. gularis*, *hieroglyphicus*, *quadrato-maculatus*, *goetzei*, *bicolor*, *acuticephalus*,

*graueri*, *kandti*, *schubotzi*, *hildebrandti*, *latifrons*, *nyassae*, *melanophthalmus*, *laticeps*, *wettsteini*, *phrynoderma*, *argentovittis*, *bergeri*, *karissimbiensis*, *fuellborni*, *coeruleopunctatus*, *marungaensis*, *decoratus*, *microstictus*, *albifrons*, *rugensis*, *argentophthalmus*, *substriatus*, *mohasicus*, *brachiofasciatus*, *rubripes*, *discodactylus*, *obstetricans*, *maximus*, *pulchromarmoratus*, *multicolor*, *macro-dactylus*, *flavoguttatus*, *udjidjensis*, *thoraco-tuberculatus*, *callichromus*, *houyi*, *monticola*, *oculatus*, *nigropalmatus*, *rosaceus*, *alticola*, *ventrimaculatus*, *dermatus*, *narinus*, *scheffleri*, *togoensis*, *stuhlmanni*, *irregularis*, *renschii*, *adolphifriederici*, *noblei*, *trifasciatus*, *decipiens*, *koehli*, *unicolor*, *spatzi*, *chabanaudi*, *variabilis*, *punctatissimus*, *ipianae*, *pictus*, *lornieri*, *simus*, *pulcher*, *asper*, *moseri*, *oeseri*, *albofrenatus*, *breviceps*, *buchholzi*, *guttolineatus*, *bitaeniatus*, *ngoriensis*, *depressus*, *stenodactylus*, *pygmaeus*, *petersi*, *multifasciatus*, *brevipalmatus*, *kivuensis*, *bituberculatus*, *acuticeps*, *guineensis*, *castaneus*, *scriptus*, *albolabris*, *baummanni*, *raveni*, *ademetzi*, *kivudjensis*, *spp. n.*, *H. punctatissimus*, *H. picturatus*, *H. narinus*, *H. parallelus*, larvae described, AHL 4.—*H. argus*, note on, sex dimorphism, col. figs., *H. pusillus* probably a male of *H. argus*, *H. mossambicus*, *sp. n.*, Fambani R., Mozambique, near *H. granulatus*, p. 904, fig., PARKER 316.—*H. bayoni*, new for Portuguese E. Africa, PARKER 316.

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#### TRIONYCHIDAE.

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# XV. AVES

ARRANGED BY

W. L. SCLATER, M.A.

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Full references are given only in the case of new genera and species. In other cases the numeral in heavy Clarendon refers to the List of Titles, where the full reference will be found. The figures in smaller Clarendon refer to the volume number of the full reference.

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ARRANGED BY

W. L. SCLATER, M.A.

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INCLUDING NEW NAMES FOR GENERA PREVIOUSLY ESTABLISHED

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In the last six years the numbers have been:—1925, 1,987; 1926, 2,262; 1927, 2,336; 1928, 2,219; 1929, 2,022; 1930, 2,139.

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*Brachynasua Kraglievich* Mam. 60  
*Brachypanorpa Carpenter* Ins. 334  
*Brachypsaltis Meyrick* Ins. 316  
*Brachyrrhipis van Emden* Ins. 196  
*Brachyspirifer Wedekind* Brach. 23  
*Brachytaosa Muir* Ins. 389  
*Brachytydeus Thor* Arachn. 45  
*Brachyzyga Kozłowski* Brach. 29  
*Bradylaimus Stekhoven* Vermes 79  
*Branchioecetes Kahl* Prot. 56  
*Brasilania Jensen-Haarup* Ins. 380  
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*Bredo Schouteden* Ins. 384  
*Brembosoma Verhoeff* Arachn. 53  
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*Brisus Navás* Ins. 330  
*Bronchostrongylus Cameron* Vermes 79  
*Brontodorcus Didier* Ins. 215  
*Brunnicophilus Nixon* Ins. 261  
*Bryania Aldrich* Ins. 376  
*Bryophrya Kahl* Prot. 56  
*Bryophyllum Kahl* Prot. 56  
*Bryozoichthys Whitley* Pisces 60  
*Bubalophrys Schwarzer* Ins. 236  
*Bucephalomys Malloch* Ins. 368  
*Bufoceratias Whitley* Pisces 64  
*Bufonariella Thiele* Moll. 65  
*Bumacris Willemse* Ins. 421  
*Bunaka Herre* Pisces 57  
*Bundenbachiellus Broili* Arachn. 54  
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*Burenoceras Ulrich & Foerste* Moll. 110  
*Burobulla Whitley* Pisces 56  
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*Caelopygulus Roewer* Arachn. 37  
*Caenophthalmus Kröber* Ins. 352  
*Caillardia de Bergevin* Ins. 396  
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*Caissa Hering* Ins. 307  
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*Callichitones Obenberger* Ins. 204  
*Callichloracris Ramme* Ins. 421  
*Callihamus Roewer* Arachn. 38  
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*Calliuncus Roewer* Arachn. 38  
*Callochitontypus Bergenhayn* Moll. 52  
*Calocheirus J. C. Chamberlin* Arachn. 34  
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*Calomacalla Janse* Ins. 311  
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*Calycomyza Hendel* Ins. 377  
*Calyptaulax Cooper* Arachn. 26  
*Campichthys Whitley* Pisces 52  
*Campitaspis Branson & Mehl* Pisces 41  
*Camptoneurites Martynov* Ins. 433  
*Canalsia Mello-Leitão* Arachn. 37  
*Canestrinia Mello-Leitão* Arachn. 37  
*Canininula Strand* Vermes 74  
*Canthosella Chappuis* Crust. 45  
*Capabatus Csiki* Ins. 179  
*Capparidia Dumont* Ins. 311  
*Caprivia China* Ins. 387  
*Caprupeneus Whitley* Pisces 54  
*Carabiphagus Morley* Ins. 261  
*Carcharodontosaurus Stromer* Amph. 32  
*Cardipeltis Branson & Mehl* Pisces 41  
*Cariniferella Schuchert & Cooper* Brach. 13  
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- Carinolocuna Thiele* Moll. 57  
*Carolimya Malloch* Ins. 372  
*Carrionia Muir* Ins. 390  
*Carswellena Iredale* Moll. 55  
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*Cassidulina Thiele* Moll. 81  
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*Catenicula O'Donoghue* Bry. 36  
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*Cavisoma Van Cleave* Vermes 90  
*Cavoptinus Pic* Ins. 197  
*Cederhjelmia Oudemans* Arachn. 49  
*Celebomastax Willemse* Ins. 421  
*Cenefia Roewer* Arachn. 38  
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*Centrochthonius Beier* Arachn. 34  
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*Cerataelurus Broom* Amph. 31  
*Ceratometopa Townsend* Ins. 360  
*Cerauocochlis Knight* Moll. 59  
*Ceriantheomorpha Carlgren* Coel. 22  
*Certhideopsis Thiele* Moll. 60  
*Cerocephus Trägårdh* Arachn. 47  
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*Ceylancylostoma Lane* Vermes 79  
*Ceylonosticta Fraser* Ins. 412  
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*Chaetotheresia Townsend* Ins. 360  
*Chalconympha Meyrick* Ins. 317  
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*Chaoella Licharew* Brach. 17  
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*Charadraula Meyrick* Ins. 317  
*Charoniella Thiele* Moll. 66  
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*Chasicotherium Cabrera & Kraglievich*  
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*Chelomadillo Herold* Crust. 35  
*Chentrosoma Monticelli* Vermes 90  
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*Chiapasella Müllerreid* Moll. 105  
*Chibiraga Matsumura* Ins. 308  
*Chiloclista Townsend* Ins. 360  
*Chiloecia Navás* Ins. 327  
*Chiloporter Lestage* Ins. 410  
*Chimporia Laboissière* Ins. 243  
*Chinemys Smith* Amph. 33  
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*Chlanidotella Thiele* Moll. 69  
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*Choneplaxtypus Bergenhayn* Moll. 52  
*Chonetipustula Paeckelmann* Brach. 17  
*Chonochitona Eisenack* Coel. 12  
*Chopinopsetta Whitley* Pisces 62  
*Choriplaxtypus Bergenhayn* Moll. 52  
*Chosenosemia Doi* Ins. 388  
*Chromadoropsis Filippjev* Vermes 80  
*Chrysostomomyia Townsend* Ins. 366  
*Cicadopsylla Martynov* Ins. 431  
*Cingulogobius Herre* Pisces 57  
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*Cinygmoides Matsumura* Ins. 410  
*Ciplyella Vincent* Moll. 105  
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*Clinuropsis Thiele* Moll. 76  
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*Cloanthanus Ball* Ins. 393  
*Clytiella Glaesner* Crust. 30  
*Clytoscopa Turner* Ins. 292  
*Cnephia Enderlein* Ins. 336  
*Cnetha Enderlein* Ins. 337  
*Coamorpha Dyar* Ins. 310  
*Coccotydeus Thor* Arachn. 45  
*Cochliopodina Hering* Ins. 308  
*Cochlops Ameghino* Mam. 76  
*Coconympha Meyrick* Ins. 317  
*Codioxenus Santschi* Ins. 259  
*Coelocarcinus Edmondson* Crust. 26  
*Coelostrobilops Pilsbry* Moll. 88  
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*Colaphellus Weise* Ins. 241  
*Colena Mathews* Aves 115  
*Coleophasia Townsend* Ins. 360  
*Coleosmaris Norman* Pisces 55  
*Coleoxestia Aurivillius* Ins. 233  
*Coliastes Hemming* Ins. 284  
*Collogenes Meyrick* Ins. 324  
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*Comanula Hering* Ins. 308  
*Comasarcophaga Hall* Ins. 366  
*Comesiella Del Guercio* Ins. 229  
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*Congohelix Pfeffer* Moll. 85  
*Conradiella Hustache* Ins. 222  
*Contheyloides Matsumura* Ins. 308  
*Convelinus Ball* Ins. 393  
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*Coptosomoides China* Ins. 380  
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*Craspedozabrus Ganglbauer* Ins. 183  
*Crassione Dakin* Crust. 34  
*Craterophyllum Tolmatchoff* Coel. 23  
*Creobota Turner* Ins. 312  
*Cressina Stephensen* Crust. 38  
*Crispella Kozlowski* Brach. 23  
*Cristatogobius Herre* Pisces 58  
*Crurithyris George* Brach. 23  
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*Cryptacanthoides Soldatov & Lindberg* Pisces 60  
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*Cryptobunus Lawrence* Arachn. 39  
*Cryptocheiridium J. C. Chamberlin* Arachn. 34  
*Cryptoconchustypus Bergenhayn* Moll. 52  
*Cryptoparma Goding* Ins. 392  
*Cryptophania Banks* Ins. 406  
*Cryptoplaxtypus Bergenhayn* Moll. 52  
*Cryptopygoplus Lawrence* Arachn. 37  
*Cryptosarcophila Townsend* Ins. 366  
*Cryptotropa Strand* Vermes 63  
*Ctenidiosomus Jordan* Ins. 378  
*Ctenocorissa Whitley* Pisces 56  
*Ctenoscolopsis Fowler* Pisces 54  
*Cucullanelus Törnquist* Vermes 80  
*Cullinia Cabrera & Kraglievich* Mam. 69  
*Curieus Bolivar y Pieltain* Ins. 422  
*Currupiscis Whitley* Pisces 61  
*Cutehisphinctes Spath* Moll. 110  
*Cyacyrtoneura Townsend* Ins. 368  
*Cyanodesmops Munro* Ins. 372  
*Cyclocyathus Volgodin* Coel. 23  
*Cyclonaias Pilsbry* Vermes 100\*  
*Cycloprosa Turner* Ins. 292  
*Cyclopsis Popov* Pisces 61  
*Cygnavus Lambrecht* Aves 95  
*Cylichnania Marwick* Moll. 79  
*Cymotrix Gaede* Ins. 298  
*Cynariognathus Broom* Amph. 31  
*Cynosuchoides Broom* Amph. 31  
*Cyphobrembana Verhoeff* Crust. 35  
*Cypholepis Gross* Pisces 44  
*Cyphopoditius Verhoeff* Arachn. 51  
*Cyrbasiodon Broom* Amph. 31  
*Cyrtinaella Fredericks* Brach. 28  
*Cyrtinopsis Fredericks* Brach. 28  
*Cyrtodontula Tomlin* Moll. 91  
*Cyrtonotella Schuchert & Cooper* Brach. 12  
*Cyrtoneuropsis Townsend* Ins. 368  
*Cyrtosymbolia Parent* Ins. 355  
*Cystidicoloides Skinner* Vermes 81  
*Cytherelloidea Alexander* Crust. 49  
*Dactuliothrips Moulton* Ins. 402  
*Dactylopodola Strand* Vermes 93  
*Daedalicthys Brough* Pisces 44  
*Dahlbruchus Bridwell* Ins. 239  
*Dakeoceras Ulrich & Foerste* Moll. 111  
*Dampfiella Sellnick* Arachn. 47  
*Danaphos Bruun* Pisces 46  
*Dartmuthia Patten* Pisces 41  
*Dasmiopsis Oppenheim* Coel. 23  
*Dasybranchethus Monro* Vermes 97  
*Davidjordania Popov* Pisces 60  
*Daylesfordia Oke* Ins. 222  
*Debilissa Aurivillius* Ins. 233  
*Decapauropus Remy* Arachn. 54  
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*Deltigalus Roever* Arachn. 37  
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*Deltomyza Malloch* Ins. 360  
*Deltopinus Ball* Ins. 393  
*Demonarosa Matsumura* Ins. 308  
*Dendromyza Hendel* Ins. 377  
*Deniharpa Iredale* Moll. 72  
*Dentathalia Benson* Ins. 272  
*Derbyella Grabau* Brach. 16  
*Deretiodes Marshall* Ins. 223  
*Deropsidea Blake* Ins. 243  
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*Devisina Fowler* Pisces 53  
*Dexillichthys Whitley* Pisces 62  
*Dexiotrichides Kahl* Prot. 56  
*Diaphanobezzia Ingram & Macfie* Ins. 338  
*Diaphanoteuthis Tomlin* Moll. 108  
*Diapheleopsis Karny* Ins. 418  
*Dicellogygae Brough* Pisces 44  
*Diceratherium Dietrich* Mam. 70  
*Dicraeosis Gebien* Ins. 208  
*Dicranopteron Schmitz* Ins. 356  
*Dictyonograptus Travassos* Vermes 63  
*Dictyosiphon Lestage* Ins. 410  
*Didymochelia Barnard* Crust. 38  
*Dielymella Ulrich & Bassler* Crust. 43  
*Dienstina Richter* Arachn. 27  
*Dienerina Ozaki* Brach. 24  
*Digranoceras Cockerell* Ins. 249  
*Dilophiocara Redikorzev* Arachn. 40

\* This genus also *Scalenilla* and *Truncillopsis* are wrongly placed in Vermes and should have been included in Mollusca. Though published in 1922 they have not previously been recorded in the Record.

- Dinawides *Hering* Ins. 308  
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 Disophyllum *Tolmashoff* Coel. 24  
 Distefania *Fucini* Moll. 111  
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     Moll. 104  
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 Dolichowithius *J. C. Chamberlin*  
     Arachn. 34  
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 Doreulus *Didier* Ins. 215  
 Doriella *Townsend* Ins. 361  
 Doryidomorpha *Laboissière* Ins. 243  
 Dorythrips *Hood* Ins. 403  
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 Drechsella *Joubin* Moll. 108  
 Drepanida *MacFarland* Moll. 80  
 Dryadillo *Herold* Crust. 35  
 Ductina *Richter* Arachn. 27  
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     Prot. 46  
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     40  
 Encarsiocera *Czerny* Ins. 373  
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 Epilepia *Janse* Ins. 312  
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 Epimeriopsis *Barnard* Crust. 38  
 Epimesopheps *Rebel* Ins. 318  
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 Eucoliuris *Liebke* Ins. 180  
 Eudaphne *Bartsch* Moll. 77  
 Eudicronychus *Mequignon* Ins. 202  
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 Euryanas *Öliver* Aves 95  
 Euryaplothrips *Ramakrishna Ayyar*  
 & *Margabandhu* Ins. 403  
 Eurydorcus *Didier* Ins. 215  
 Euryermis *Müller* Vermes 82  
 Eurymetra *Odhner* Vermes 64  
 Eurynotacris *Ramme* Ins. 423  
 Euryspirifer *Wedekind* Brach. 24  
 Eurytetranychus *Oudemans* Arachn.  
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 Eurytrachelelus *Didier* Ins. 215  
 Euryzabrus *Ganglbauer* Ins. 183  
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 Eutelothyria *Townsend* Ins. 361  
 Euthymella *Thiele* Moll. 60  
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 Eutriphora *Cotton & Godfrey* Moll. 60  
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 Mucronothrus *Trägårdh* Arachn. 48  
 Multicostella *Schuchert & Cooper* Brach. 12  
 Multiglandularis *Schulz & Skworzow* Vermes 67  
 Multitestis *Manter* Vermes 67  
 Multivitellaria *Phadke & Gulati* Vermes 67  
 Muñizia *Kraglievich* Mam. 68  
 Munsteria *Krogerus* Ins. 190  
 Muriceopsis *Aurivillius* Coel. 19  
 Murithais *Grant & Gale* Moll. 70  
 Muscimantis *Henry* Ins. 417  
 Mutationella *Kozłowski* Brach. 29  
 Mycetophyllopsis *Oppenheim* Coel. 26  
 Mysticomima *Meyrick* Ins. 313  
 Mystrorrhinus *Marshall* Ins. 225  
 Mytaras *Steen* Amph. 27  
 Myxobotrus *Oka* Protoch. 5  
 Nacaura *Navás* Ins. 332  
 Nadezhdiella *Plavilstshikov* Ins. 234  
 Nagodopsis *Matsumura* Ins. 309  
 Nahasemia *Matsumura* Ins. 389  
 Namutonia *Lawrence* Arachn. 37  
 Nannobisium *Beier* Arachn. 35  
 Nannolithax *Kellogg* Mam. 74  
 Naratettix *Matsumura* Ins. 394  
 Narkemina *Martynov* Ins. 433  
 Narmadella *Roewer* Arachn. 40  
 Nasutoideus *Ball* Ins. 394  
 Natarosa *Hering* Ins. 309  
 Naxensiceras *Fucini* Moll. 115  
 Naytiopsis *Thiele* Moll. 70  
 Nazatexico *Whitley* Pisces 48  
 Nealosa *Herre & Myers* Pisces 45  
 Neanthias *Norman* Pisces 53  
 Neaspidoceras *Spath* Moll. 115  
 Nefocoenia *Oppenheim* Coel. 26  
 Nefta *Navás* Ins. 332  
 Negloides *Prout* Ins. 303  
 Negogaleus *Whitley* Pisces 42  
 Negroroncus *Beier* Arachn. 35  
 Neiraga *Matsumura* Ins. 309  
 Nematochares *Meyrick* Ins. 320  
 Nemertoderma *Steinböck* Vermes 59  
 Neoabantis *Gebien* Ins. 209  
 Neonaptychus *Nagao* Moll. 115  
 Neoborborus *Rayment* Ins. 371  
 Neobrachelia *Townsend* Ins. 363  
 Neocolluris *Liebke* Ins. 180  
 Neocoloptera *Dozier* Ins. 391  
 Neodiscodes *Compere* Ins. 262  
 Neoduvaucelia *Malloch* Ins. 363  
 Neoeuantha *Townsend* Ins. 363  
 Neoferdina *Livingstone* Echin. 18  
 Neohapalops *Kraglievich* Mam. 75  
 Neohendecasis *Shibuya* Ins. 313  
 Neolachnaphis *Shinji* Ins. 398  
 Neoleptoglossa *Bernhauer & Scheerpeltz* Ins. 187  
 Neomicropteryx *Issiki* Ins. 326  
 Neomonopleura *Hodson & Harris* Moll. 105  
 Neomunella *Ozaki* Brach. 25  
 Neonomopleus *Schenkling* Ins. 202  
 Neopedies *Hebard* Ins. 424  
 Neophycus *Kröber* Ins. 352  
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- Neopilio Lawrence* Arachn. 39  
*Neoporus Guignot* Ins. 184  
*Neopothyne Matsushita* Ins. 238  
*Neopucroliella Roewer* Arachn. 38  
*Neoscorpis Smith* Pisces 55  
*Neosema Rebel* Ins. 294  
*Neostacheoceras Schindewolf* Moll. 115  
*Neostethaspis Dalla Torre* Ins. 218  
*Neotabuda Kröber* Ins. 352  
*Neotestudo Hewitt* Amph. 34  
*Neotherium Kellogg* Mam. 62  
*Neotetrabothrius Nybelin* Vermes 73  
*Neotrafoiopsis Townsend* Ins. 363  
*Neotriatoma Pinto* Ins. 385  
*Neotrichopteryx Deane* Ins. 191  
*Neotylenchus Steiner* Vermes 85  
*Nephridiacanthus Meyer* Vermes 91  
*Nephridiorhynchus Meyer* Vermes 91  
*Nerinata Olsson* Moll. 65  
*Nesendaeus Marshall* Ins. 225  
*Nesobaris Marshall* Ins. 225  
*Nesodiscus Thiele* Moll. 86  
*Nesostrobilops Pilsbry* Moll. 88  
*Nessorhamphus Schmidt* Pisces 51  
*Nestorellus Gerasimov* Ins. 320  
*Neuburgia Martynov* Ins. 432  
*Neuchorus Uchida* Ins. 268  
*Neurota Curran* Ins. 348  
*Nevermannia Enderlein* Ins. 337  
*Nikkotettix Matsumura* Ins. 395  
*Ninga Navás* Ins. 332  
*Niphonoclea Aurivillius* Ins. 238  
*Niponia Verhoeff* Arachn. 52  
*Nipporicnus Uchida* Ins. 268  
*Nirmides Hering* Ins. 309  
*Nodierella Hustache* Ins. 225  
*Nodoenemus Marshall* Ins. 225  
*Nokona Matsumura* Ins. 315  
*Normanetta Chabanaud* Pisces 62  
*Norosia Portevin* Ins. 192  
*Norvellina Ball* Ins. 395  
*Noshimea Matsumura* Ins. 294  
*Notaphomimus Netolitzky* Ins. 179  
*Noteriades Cockerell* Ins. 250  
*Notictis Ameghino* Mam. 59  
*Notobothrus Parent* Ins. 355  
*Notodiscus Thiele* Moll. 86  
*Notogaleus Whitley* Pisces 42  
*Notomyia Cotton* Moll. 107  
*Notoplanella Bock* Vermes 59  
*Novovaginula Thiele* Moll. 83  
*Nunciella Roewer* Arachn. 39  
*Nuttalliella Bedford* Arachn. 46  
*Nyella Oke* Ins. 225  
*Nymphotroctes Badonnel* Ins. 406  
  
*Obidosus Roewer* Arachn. 38  
*Ochrodermatina Thiele* Moll. 88  
*Octurothrips Priesner* Ins. 404  
*Ocypteryx Townsend* Ins. 363  
*Odagmia Enderlein* Ins. 337  
  
*Odhneria Travassos* Vermes 67  
*Odontocardus Fleutiaux* Ins. 203  
*Oedicerina Stephensen* Crust. 39  
*Oedolothax Kellogg* Mam. 74  
*Oestrophasiana Townsend* Ins. 363  
*Ogilbyina Fowler* Pisces 53  
*Ogilviastrea Oppenheim* Coel. 26  
*Oilea Liebke* Ins. 181  
*Oiratia Martynov* Ins. 433  
*Okenina Malloch* Ins. 370  
*Okondo Schouteden* Ins. 385  
*Olesicoccus Borgmeier* Ins. 335  
*Oligoleon Ebsen-Petersen* Ins. 333  
*Oligomerimus Portevin* Ins. 197  
*Oligomys Schuchert & Cooper* Brach. 11  
*Oligotypus Carpenter* Ins. 432  
*Olivelopsis Thiele* Moll. 74  
*Olpiolum Beier* Arachn. 35  
*Omobrus Andrewes* Ins. 181  
*Omoperypus Netolitzky* Ins. 179  
*Onchocercella Yorke & Maplestone* Vermes 85  
*Onithochitontypus Bergenhayn* Moll. 53  
*Onychorhinus Boulton* Aves 108  
*Oonopsopilio Lawrence* Arachn. 39  
*Opecoeloides Odhner* Vermes 67  
*Ophiochalcis Koehler* Echin. 19  
*Ophiocypris Koehler* Echin. 19  
*Ophiodaphne Koehler* Echin. 19  
*Ophiodelos Koehler* Echin. 19  
*Ophiogelas Koehler* Echin. 19  
*Ophiovesta Koehler* Echin. 20  
*Ophiozeta Koehler* Echin. 20  
*Opisolia Jordan* Ins. 231  
*Opposirius Iredale* Moll. 63  
*Opticopteryx Townsend* Ins. 363  
*Oreilana Nierstrasz* Crust. 33  
*Oreulus Sicard* Ins. 194  
*Oreianthus Traver* Ins. 411  
*Orietites Andrewes* Ins. 181  
*Orientocreadium Tubanguí* Vermes 68  
*Orientocryptus Uchida* Ins. 268  
*Orionoides Spath* Moll. 115  
*Orthildautes Fucini* Moll. 115  
*Orthotetella King* Brach. 16  
*Oswaldoia Travassos* Vermes 68  
*Otidoeus Bedford* Ins. 405  
*Otilipeurus Bedford* Ins. 405  
*Ottinychus Marshall* Ins. 226  
*Oustechinus Lambert* Echin. 15  
*Ovatipsa Iredale* Moll. 66  
*Oxapampoepalpus Townsend* Ins. 363  
*Oxymantis Werner* Ins. 417  
*Oxyspirura Skrzabin* Vermes 86  
*Ozarkina Ulrich & Bridge* Moll. 54  
*Ozawaia Cushman* Prot. 48  
  
*Pachycarichthys Whitley* Pisces 60  
*Pachydyptes Oliver* Aves 89  
*Pachymedon Cameron* Ins. 188  
*Pachyolpium Beier* Arachn. 35

- Pachysentis Meyer Vermes* 92  
*Paducia Hottes & Frison Ins.* 399  
*Paederognathus Wendeler Ins.* 188  
*Paedomastax Bolivar & Pieltain Ins.* 424  
*Paenapocryptes Herre Pisces* 58  
*Pahlenella Schuchert & Cooper Brach.* 13  
*Painella Muir Ins.* 390  
*Palaeomicroides Issiki Ins.* 326  
*Palaeomystis Meyrick Ins.* 320  
*Palaeorallus Wetmore Aves* 89  
*Palamharpa Iredale Moll.* 74  
*Paleorana Scortecci Amph.* 29  
*Paleoscytina Carpenter Ins.* 431  
*Paloa Herre Pisces* 57  
*Panamaphyto Townsend Ins.* 366  
*Pandaka Herre Pisces* 58  
*Panderina Schuchert & Cooper Brach.* 12  
*Pangasianodon Chevey Pisces* 50  
*Pangoa Marwick Moll.* 70  
*Panopistus Sinitzin Vermes* 68  
*Pantolabus Whitley Pisces* 54  
*Para Crosby & Bishop Arachn.* 30  
*Parabenedenia Johnston Vermes* 68  
*Parablattelytron Tillyard Ins.* 434  
*Parablepharocera Kitakami Ins.* 338  
*Parabothus Norman Pisces* 62  
*Paracaecilius Badonnel Ins.* 406  
*Paracepon Nierstrasz & Brender Crust.* 34  
*Parachernes J. C. Chamberlin Arachn.* 35  
*Paracranaë Willemse Ins.* 424  
*Paradaeum Lawrence Arachn.* 39  
*Parademostis Obenberger Ins.* 206  
*Paradicula Whitley Pisces* 62  
*Paradirus Dognar-Zapolskii Ins.* 274  
*Paraditha Beier Arachn.* 35  
*Paradystus Aurivillius Ins.* 238  
*Parafavosites Orlov Coel.* 27  
*Parafusulina Dunbar & Skinner Prot.* 48  
*Paragarumna Muir Ins.* 390  
*Parahenicopus Portevin Ins.* 198  
*Parakeyserlingina Fredericks Brach.* 20  
*Paralimnetis Gurney Crust.* 44  
*Paralitoborus Antoine Ins.* 209  
*Paralysianopsis Schellenberg Crust.* 40  
*Paramallocera Aurivillius Ins.* 234  
*Paramarginifera Fredericks Brach.* 18  
*Paramartyria Issiki Ins.* 326  
*Parametanarsia Gerasimov Ins.* 320  
*Paramicrogale Grandidier & Petit Mam.* 59  
*Paramonostomum Lühe Vermes* 68  
*Paranastella Obenberger Ins.* 206  
*Paranthrax Paramonow Ins.* 354  
*Parapetalocephala Katô Ins.* 395  
*Paraphotichthys Whitley Pisces* 46  
*Parapodophrya Kahl Prot.* 58  
*Parapseudione Nierstrasz & Brender Crust.* 34  
*Pararhynchomyia Becker Ins.* 367  
*Parariventina Beier Ins.* 417  
*Paraserriovomer Roule & Angel Pisces* 51  
*Parasitala Thiele Moll.* 83  
*Parasoida Hering Ins.* 309  
*Paraspirifer Wedekind Brach.* 25  
*Parastericta Janse Ins.* 313  
*Parastomias Roule & Angel Pisces* 46  
*Parastrophinella Schuchert & Cooper Brach.* 15  
*Parathalerothele Canals Arachn.* 29  
*Paratidia Malloch Ins.* 370  
*Paratrichosiphum Takahashi Ins.* 399  
*Paratrigodon Cabrera & Kraglievich Mam.* 69  
*Paratuposa Deane Ins.* 191  
*Paraustrochthonius Beier Arachn.* 35  
*Parawithius J. C. Chamberlin Arachn.* 35  
*Parechinotachina Townsend Ins.* 363  
*Parempleurus Heller Ins.* 226  
*Parennometes van Emden Ins.* 196  
*Parenteles King Brach.* 14  
*Pareora Marwick Moll.* 63  
*Parepibdella Johnston Vermes* 68  
*Parepimeriella Schellenberg Crust.* 40  
*Pareuderus Ferrière Ins.* 263  
*Parevander Aurivillius Ins.* 234  
*Paraxoglossum Hubbs Pisces* 48  
*Parhedyle Thiele Moll.* 80  
*Parimalleus Iredale Moll.* 94  
*Pariphimediella Schellenberg Crust.* 40  
*Pariperiocolodes Barnard Crust.* 40  
*Parmavitrea H. B. Baker Moll.* 83  
*Parmorthis Schuchert & Cooper Brach.* 13  
*Parodontaspis White Pisces* 42  
*Paroediceroides Schellenberg Crust.* 40  
*Paroligoneurus Muesebeck Ins.* 271  
*Parolpium Beier Arachn.* 36  
*Paromias Voss Ins.* 226  
*Paroxyonyx Hustache Ins.* 222  
*Parrina Crushman Prot.* 48  
*Parunio Ping Moll.* 100  
*Parvicrepis Whitley Pisces* 63  
*Parviparma Herre Pisces* 57  
*Parvisinum Iredale Moll.* 65  
*Parvitonna Iredale Moll.* 67  
*Parvoliva Thiele Moll.* 74  
*Parvulus Lutz Amph.* 28  
*Patevia Valkanov Prot.* 58  
*Pauesia Pérez Ins.* 269  
*Paurorthis Schuchert & Cooper Brach.* 12  
*Pectovitrea H. B. Baker Moll.* 83  
*Peetzia Tolmatchoff Coel.* 27  
*Pegohyperia Barnard Crust.* 42  
*Peleropsella Hustache Ins.* 226

- Pelinoides Cresson* Ins. 375  
*Pellasinmia Iredale* Moll. 67  
*Pelopopia Sellnick* Arachn. 48  
*Peltatetraops Fowler* Pisces 51  
*Pentameroides Schuchert & Cooper* Brach. 15  
*Pentatrachomonoides Kirby* Prot. 53  
*Peracroglossa Townsend* Ins. 363  
*Perditocardinia Schuchert & Cooper* Brach. 13  
*Pereboria Zalessky* Ins. 431  
*Perioxyonyx Hustache* Ins. 222  
*Peripolocetus Kellogg* Mam. 75  
*Perisceptis Meyrick* Ins. 320  
*Perisclus Weld* Ins. 265  
*Peritrophon Warwick* Moll. 70  
*Permacridites Martynov* Ins. 433  
*Permaeschna Martynov* Ins. 432  
*Permarrhaphus Martynov* Ins. 429  
*Permegalomus Martynov* Ins. 430  
*Permelytron Tillyard* Ins. 434  
*Permonera Carpenter* Ins. 432  
*Perthacantha Roewer* Arachn. 39  
*Peruchilus Olsson* Moll. 63  
*Peruiana Martin* Moll. 74  
*Perulithes Olsson* Moll. 74  
*Petalocephaloides Kató* Ins. 395  
*Petalostoma Meyrick* Ins. 320  
*Petalothyrsa Meyrick* Ins. 320  
*Petenya Kormos* Mam. 59  
*Petrochorista Martynov* Ins. 430  
*Petrovitrea H. B. Baker* Moll. 84  
*Peucoteles Meyrick* Ins. 321  
*Pfuckeria Lisson* Moll. 117\*  
*Phaenotheriopsis Wolfrum* Ins. 231  
*Phanerostethus Marshall* Ins. 226  
*Phanoleon Banks* Ins. 333  
*Phanotherus Ameghino* Mam. 75  
*Phascolostrongylus Canavan* Vermes 87  
*Phasmofrontina Townsend* Ins. 363  
*Pheidoloxenides Wasmann* Ins. 188  
*Pherocraspedon Mathews* Aves 120  
*Philasterides Kahl* Prot. 57  
*Philhedrella Kozłowski* Brach. 11  
*Philippoleptis Malloch* Ins. 351  
*Philomaoria J. C. Chamberlin* Arachn. 36  
*Philomusaea Meyrick* Ins. 321  
*Phylzakium Attems* Arachn. 53  
*Pholcobates Meyrick* Ins. 321  
*Phorcardius Fleutiaux* Ins. 203  
*Photuroliciola Pic* Ins. 200  
*Phoxocephalopsis Schellenberg* Crust. 40  
*Phricogenes Meyrick* Ins. 321  
*Phrynelox Whitley* Pisces 63  
*Phylacophora Filipjev* Ins. 325  
*Phyllaristomyia Townsend* Ins. 363  
*Phyllodytesius Schenkling* Ins. 226  
*Physalophrya Kahl* Prot. 57  
*Physemophorus Krauss* Ins. 425  
*Phytoliriomyza Hendel* Ins. 377  
*Pilica Curran* Ins. 353  
*Pinzulenza Hering* Ins. 309  
*Pionorthis Schuchert & Cooper* Brach. 12  
*Pipidonia Smith* Pisces 58  
*Pirionimyia Townsend* Ins. 363  
*Placiphorellatypus Bergenhayn* Moll. 53  
*Plagiacriss Sjöstedt* Ins. 425  
*Planidorsa Schuchert & Cooper* Brach. 12  
*Planiprora Whitley* Pisces 61  
*Plassenia Yabe & Sugiyama* Coel. 14  
*Platychela Glaessner* Crust. 30  
*Platychelyne Tomlin* Moll. 120  
*Platycytoniscus Herold* Crust. 36  
*Platylithax Kellogg* Mam. 74  
*Platymoideus Ball* Ins. 395  
*Platynanus Aurivillius* Ins. 226  
*Platynema Kahl* Prot. 57  
*Platyorthis Schuchert & Cooper* Brach. 13  
*Platyrhinops Steen* Amph. 27  
*Platysystatus Muir* Ins. 390  
*Platyterranychus Oudemans* Arachn. 42  
*Plaxactia Townsend* Ins. 363  
*Plectodonta Kozłowski* Brach. 16  
*Plerogenoides Travassos* Vermes 69  
*Plesiopsyche Navás* Ins. 329  
*Plethometopus Ulrich* Arachn. 27  
*Pleurispella Umann* Ins. 245  
*Plicambularia Thiele* Moll. 71  
*Pliocambystoma Adams & Martin* Amph. 27  
*Pliohydrochoerus Kraglievich* Mam. 68  
*Plocopsylla Jordan* Ins. 378  
*Plumiphora Janse* Ins. 313  
*Plusinia Gaede* Ins. 298  
*Plynoides Schouteden* Ins. 385  
*Pneumatophilus Odhner* Vermes 69  
*Podolella Kozłowski* Brach. 29  
*Podomacronema Banks* Ins. 329  
*Poëmyza Hendel* Ins. 377  
*Pogocrinus Gagnebin* Echin. 23  
*Pogonogaster Rehn* Ins. 417  
*Pogonogobius Smith* Pisces 58  
*Polinella Marwick* Moll. 65  
*Polycaecum Maplestone* Vermes 87  
*Polydixodina Dunbar & Skinner* Prot. 49  
*Polyechmatemys Ping* Amph. 33  
*Polyphragma Alexander* Ins. 345  
*Pomadasyina Fowler* Pisces 54  
*Pomphorhynchus Monticelli* Vermes 92  
*Ponticulus Bierig* Ins. 186  
*Porithodes Aurivillius* Ins. 234  
*Porizonopteron Meier* Ins. 268  
*Poroalticus Fowler* Pisces 59

\* This name was misspelt *Pfuckeria* in *Zoological Record*, 1930, Moll., p. 112.

- Poropuntius *Smith* Pisces 48  
 Postiodrilus *Boldt* Vermes 101  
 Powondrella *Dalla Torre* Ins. 306  
 Praehaploceras *Monestier* Moll. 117  
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 Praeparkinsonia *Schmidtill & Krumbeck* Moll. 117  
 Praesetora *Hering* Ins. 309  
 Praesusica *Hering* Ins. 309  
 Prasma *Roewer* Arachn. 39  
 Praspedomyza *Hendel* Ins. 377  
 Pratima *Maulik* Ins. 242  
 Precuthona *Odhner* Moll. 80  
 Preflorianites *Spath* Moll. 117  
 Preptothauma *Draudt* Ins. 298  
 Pretneria *Müller* Ins. 190  
 Prionolepis *Smith* Pisces 52  
 Priothorax *Gebien* Ins. 209  
 Priscovitrea *H. B. Baker* Moll. 84  
 Priscovitriops *H. B. Baker* Moll. 84  
 Pristinoidea *H. B. Baker* Moll. 84  
 Pristinopsis *H. B. Baker* Moll. 84  
 Pristobunus *Roewer* Arachn. 39  
 Proarchytas *Townsend* Ins. 363  
 Problitora *Iredale* Moll. 58  
 Proboscidophis *Fan* Amph. 40  
 Probreviceps *Parker* Amph. 30  
 Procalpurnus *Thiele* Moll. 67  
 Proclava *Thiele* Moll. 61  
 Procopromyza *Richards* Ins. 370  
 Profilcollis *Meyer* Vermes 92  
 Profundinassa *Thiele* Moll. 71  
 Progarypus *Beier* Arachn. 36  
 Progoneura *Carpenter* Ins. 432  
 Proharpinia *Schellenberg* Crust. 41  
 Prokeyserlingina *Fredericks* Brach. 20  
 Prolaphystiopsis *Schellenberg* Crust. 41  
 Proletus *Attems* Arachn. 53  
 Promegaparia *Townsend* Ins. 363  
 Proneritula *Thiele* Moll. 71  
 Proreinia *Thiele* Moll. 88  
 Propachycordyle *Thiel* Coel. 14  
 Propedies *Hebard* Ins. 425  
 Properisphinctes *Spath* Moll. 117  
 Proplanaxis *Thiele* Moll. 61  
 Proptychitoides *Spath* Moll. 117  
 Prorichthofenia *King* Brach. 20  
 Proseina *Stephensen & Pirlot* Crust. 42  
 Proseila *Thiele* Moll. 61  
 Prosorhynchoides *Dollfus* Vermes 69  
 Prospanipalpus *Townsend* Ins. 363  
 Prosteganura *Yamashina* Aves 119  
 Prosthodendrium *Dollfus* Vermes 70  
 Prosyringothyris *Fredericks* Brach. 25  
 Protathyris *Kozlowski* Brach. 29  
 Protelytron *Tillyard* Ins. 434  
 Protelytropis *Tillyard* Ins. 434  
 Prothaumatelson *Schellenberg* Crust. 41  
 Protocatantops *Zeuner* Ins. 433  
 Protocota *Roberts* Aves 101  
 Protocoelocerania *Laboissière* Ins. 244  
 Protocolliuris *Liebke* Ins. 180  
 Protocryptis *Meyrick* Ins. 321  
 Protodendron *Thomson & Dean* Coel. 20  
 Protomella *Thiele* Moll. 63  
 Protonephrocera *Collin* Ins. 357  
 Protopirula *Rennie* Moll. 67  
 Protoplotus *Lambrecht* Aves 96  
 Prototoceras *Spath* Moll. 117  
 Prymnatomis *Meyrick* Ins. 321  
 Psalenoba *Roewer* Arachn. 39  
 Pseudacicephala *Malloch* Ins. 370  
 Pseudacratus *Dalla Torre* Ins. 218  
 Pseudaeolesthes *Plavilstshikov* Ins. 234  
 Pseudagathiceras *Schindewolf* Moll. 117  
 Pseudaltha *Hering* Ins. 309  
 Pseudamphilochus *Schellenberg* Crust. 41  
 Pseudanapaea *Hering* Ins. 309  
 Pseudarotes *Meier* Ins. 268  
 Pseudeuclea *Schwarzer* Ins. 238  
 Pseudeurystheus *Schellenberg* Crust. 41  
 Pseudharpinia *Schellenberg* Crust. 41  
 Pseudhexatrachus *Andrewes* Ins. 178  
 Pseudidonauton *Hering* Ins. 309  
 Pseudindra *Blöte* Ins. 383  
 Pseudiphimmediella *Schellenberg* Crust. 41  
 Pseudiron *McDunnough* Ins. 411  
 Pseudischyrocerus *Schellenberg* Crust. 41  
 Pseudisidora *Thiele* Moll. 82  
 Pseudoacontias *Hewitt* Amph. 37  
 Pseudoamaltheus *Frebold* Moll. 118  
 Pseudoaulolaimus *Imamura* Vermes 87  
 Pseudobellardia *Cox* Moll. 61  
 Pseudobenedenia *Johnston* Vermes 70  
 Pseudoblothrus *Beier* Arachn. 36  
 Pseudobombyliomyia *Townsend* Ins. 363  
 Pseudocadia *Lindholm* Amph. 33  
 Pseudocallispa *Uhmann* Ins. 246  
 Pseudocamarophoria *Wedekind* Brach. 15  
 Pseudocephus *Dovnar-Zapolski* Ins. 274  
 Pseudochromichthys *Schmidt* Pisces 53  
 Pseudochrysa *Okamoto* Ins. 333  
 Pseudocorixa *Jaczewski* Ins. 388  
 Pseudocriopsis *Melzer* Ins. 238  
 Pseudodagmia *Baranoff* Ins. 337  
 Pseudoduvalius *Mallász* Ins. 180  
 Pseudoeuryurus *Ameghino* Mam. 76  
 Pseudofaunus *Olsson* Moll. 61  
 Pseudofavia *Oppenheim* Coel. 28  
 Pseudoflemingites *Spath* Moll. 118  
 Pseudofusulina *Dunbar & Skinner* Prot. 49  
 Pseudogarypinus *Beier* Arachn. 36  
 Pseudogastrioceras *Spath* Moll. 118  
 Pseudoglaucoma *Kahl* Prot. 57  
 Pseudohadronotus *Voss* Ins. 227

- Pseudohegetotherium Cabrera & Kraglievich* Mam. 69  
*Pseudohercostomus Stackelberg* Ins. 355  
*Pseudoholocampsa Shiraki* Ins. 416  
*Pseudokarumia Pic* Ins. 200  
*Pseudokeyserlingina Fredericks* Brach. 20  
*Pseudokoroga Schellenberg* Crust. 41  
*Pseudolachnus Shinji* Ins. 399  
*Pseudolyria Martin* Moll. 74  
*Pseudomacrocorupha Muir* Ins. 390  
*Pseudomegasis Chrétien* Ins. 314  
*Pseudomicra Rebel* Ins. 291  
*Pseudomonotrypa Reschetkin* Coel. 20  
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*Pseudopalatus Mehl* Amph. 32  
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*Pseudosyncrypta Kisselew* Prot. 52  
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*Pseudotephritina Malloch* Ins. 372  
*Pseudothaumatelson Schellenberg* Crust. 41  
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*Pseudoxanthozonella Townsend* Ins. 364  
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*Psychomastax Rehn & Hebard* Ins. 425  
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*Pteroclava Weill* Coel. 14  
*Pteroplatydesmus Dalla Torre* Ins. 218  
*Pteroptychus Aurivillius* Ins. 235  
*Ptilostenodes Alexander* Ins. 345  
*Ptochoecetis Ulmer* Ins. 329  
*Ptychidio Myers* Pisces 48  
*Ptychopis Gomes* Amph. 40  
*Ptychopleurella Schuchert & Cooper* Brach. 12  
*Puka Marwick* Moll. 78  
*Pycropanelus Arrow* Ins. 217  
*Pygophalangodus Mello-Leitão* Arachn. 37  
*Pyraphis Bèrner* Ins. 399  
*Pyrrhodexia Townsend* Ins. 364  
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*Ra Whitley* Pisces 47  
*Radulinopsis Soldatov & Lindberg* Pisces 61  
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*Reporhamphus Whitley* Pisces 51  
*Retetydeus Thor* Arachn. 45  
*Reticulariina Fredericks* Brach. 28  
*Reticulariopsis Fredericks* Brach. 25  
*Retrorsirostra Schuchert & Cooper* Brach. 12  
*Rhabdias Stiles & Hassall* Vermes 88  
*Rhabdochitina Eisenack* Coel. 14  
*Rhabdocrates Meyrick* Ins. 321  
*Rhachosaundersia Townsend* Ins. 364  
*Rhacopea Ulrich & Bridge* Moll. 55  
*Rhadinocopes Hustache* Ins. 227  
*Rhagorchis Manter* Vermes 70  
*Rhakistella Weller* Por. 5  
*Rhamnopsis Matsumura* Ins. 309  
*Rhamphostruthus Mayr* Aves 119  
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*Rhamphopteryx Townsend* Ins. 364  
*Rheocloides Nichols & La Monte* Pisces 60  
*Rhinocochlis Thiele* Moll. 84  
*Rhipidium Schuchert & Cooper* Brach. 15  
*Rhomboidestoma Martin* Moll. 78  
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*Roeweria Lawrence* Arachn. 39  
*Roqueella Lundblad* Arachn. 44  
*Roquettea Mello-Leitão* Arachn. 41  
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*Striacanthus Hills* Pisces 42  
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*Striatostenus Uchida* Ins. 269  
*Strigomonas Lwoff* Prot. 53  
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*Stromatitica Meyrick* Ins. 322  
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*Stylophyllum Tolmatchoff* Coel. 28  
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*Sumatrillo Herold* Crust. 36  
*Supplanaxis Thiele* Moll. 62  
*Surchania Lebedev* Ins. 228  
*Surcoufiella Bequaert* Ins. 350  
*Sushkinia Martynov* Ins. 432  
*Sycostoma Cox* Moll. 75  
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*Synactias Meyrick* Ins. 322  
*Syncampa Silvestri* Ins. 427  
*Syncerastis Meyrick* Ins. 322  
*Syncollesis Prout* Ins. 304  
*Synodontaspis White* Pisces 42  
*Synsphyronus J. C. Chamberlin* Arachn.  
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*Syntrophoides Schuchert & Cooper*  
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*Syrphopsis Zeuner* Ins. 431  
  
*Tachiniscidia Malloch* Ins. 373  
*Tachinophasia Townsend* Ins. 364  
*Taeniarchis Meyrick* Ins. 325  
*Taeniospira Ulrich & Bridge* Moll. 55  
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*Tenacipes H. B. Baker* Moll. 84  
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*Termiera Lambert* Echin. 17  
*Termitosigma Reichensperger* Ins. 356  
*Termitostroma Reichensperger* Ins. 356  
*Terricolumba Hachisuka* Aves 88  
*Tetanostola Meyrick* Ins. 322  
*Tetrachetus Looss* Vermes 71  
*Tetragonopsella Hustache* Ins. 228  
*Tetralicia Aurivillius* Ins. 239  
*Tetraneumania Lundblad* Arachn. 44  
*Tetrapsyllus Jordan* Ins. 379  
*Teukrus Liebknecht* Ins. 183  
*Thaigobiella Smith* Pisces 59  
*Thalassonympha Meyrick* Ins. 323  
*Thamnobeatricea Raymond* Coel. 14  
*Thaumatomolpium Beier* Arachn. 36  
*Thelepte Nixon* Ins. 261  
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*Themapupa Iredale* Moll. 89  
*Thereviotabanus Kröber* Ins. 351  
*Thisiomorphus Pic* Ins. 211  
*Thomasina Paeckelmann* Brach. 20  
*Thorophos Bruun* Pisces 46  
*Thosoides Shiraki* Ins. 310  
*Thyestilla Aurivillius* Ins. 239  
*Tiarella Chejcin* Prot. 57  
*Tigrigobius Fowler* Pisces 59  
*Tillyardiella Martynov* Ins. 432  
*Tipuloleskia Townsend* Ins. 364  
*Tiphycetus Kellogg* Mam. 75  
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*Torcellia Kraglievich* Mam. 75  
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- Traumatophthora *Chatton & Lwoff* Prot. 57  
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 Ussuriceras *Spath* Moll. 120  
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 Xeniella *Hustache* Ins. 228  
 Xenobius *Borgmeier* Ins. 189  
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 Xenohammus *Schwarzer* Ins. 239  
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\* See Footnote p. 6.

*Xenospiza Bangs* Aves 118  
*Xiphelasma Smith & Lang* Coel. 29  
*Xiphenax Cockerell* Ins. 429  
*Xiphistoides Goding* Ins. 392  
*Xoidolema Heinze* Ins. 240

*Yakolevia Volgodin* Coel. 29  
*Yaoshanicus Shu-Yen* Pisces 48  
*Yasila Olsson* Moll. 72  
*Yavorskia Fomitchev* Coel. 29  
*Yersiniops Hebard* Ins. 417  
*Yerutius Whitley* Pisces 59

*Yorkeispirura Skrjabin* Vermes 90

*Zaedyus Ameghino* Mam. 76  
*Zamicrus Ameghino* Mam. 76  
*Zamora Whitley* Pisces 54  
*Zaphilus Ameghino* Mam. 76  
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SUPPLEMENTARY LIST OF ABBREVIATIONS, WITH  
TITLES OF PERIODICAL PUBLICATIONS, CONTAINING  
PAPERS DEALING WITH MATTERS OF ZOOLOGICAL  
IMPORTANCE

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Since the issue of the last volume of the Zoological Record a number of new periodicals have commenced publication, a few old ones have been revived, while a few have been accidentally omitted from the list published in the Record for 1930.

It has therefore been found necessary to print a supplementary list of these. As before, the number of the periodical in the World List is given, and the initial letter in clarendon indicates the library where the periodical may be consulted.

The following are the library symbols used in this list:—

- N.** General Library of the Natural History Museum.
- Nz.** Zoological Library of the Natural History Museum.
- Ng.** Geological Library of the Natural History Museum.
- Nb.** Botanical Library of the Natural History Museum.
- B.** British Museum (Bloomsbury).
- E.** Entomological Society.
- G.** Geological Society.
- I.** Imperial Institute of Entomology.
- L.** Linnean Society.
- M.** Royal Society of Medicine.
- R.** Royal Society.
- S.** Royal College of Surgeons.
- Sc.** Science Library, South Kensington.
- T.D.** Tropical Diseases Library.
- U.** University College.
- V.** Royal College of Veterinary Surgeons.
- Z.** Zoological Society.



- Abstr. Diss. Univ. Cambridge*.—Abstracts of Dissertations approved for the Ph.D., M.Sc. & M.Litt. degrees in the University of Cambridge. [N.]
- Ann. Soc. zool.-bot. fenn. Vanamo, Helsinki*.—Annales Societatis Zoolog.-Botanicae Fennicae Vanamo. Helsinki (Helsingfors). [N.]
- Arb. bayr. Landesanst. Pflanzenb.*—Arbeiten aus der Bayerischen Landesanstalt für Pflanzenbau und Pflanzenschutz. Freiburg-München. [Nz.]
- Arb. zool. Forsch. Inst. Moskau*.—Arbeiten des Zoologischen Forschungsinstitut. Moskau. [Trudi Nauk. Inst. Zool. Moscow]. [Nz. I.]
- Arch. Biol. Soc. Sci. Varsovie*.—Archives de Biologie de la Société des Sciences et des Lettres de Varsovie. Warszawa. [N.]
- Arch. Inst. biol. São Paulo*.—Archivos do Instituto Biologico de defesa agricola e animal. São Paulo. [N. Sc.]
- Beitr. Naturdenkmalpflege Berlin*.—Beiträge zur Naturdenkmalpflege. Berlin. [N.]
- Biol. Spisy Brno*.—Biologické Spisy Academiae Veterinariae, Brno, Czechoslovakia [N.]
- Bol. Acad. Sci. Lisboa*.—Boletim da Academia das Ciências de Lisboa. [N.]
- Bol. biol. S. Paulo*.—Boletim biologico. S. Paulo, Brazil. [N.]
- Bol. Mus. Lab. Min. Geol. Lisboa*.—Boletim do Museu e Laboratorio Mineralogico e Geologico da Universidade de Lisboa. [Ng.]
- Bull. Acad. Sci. Kieff*.—Bulletin de la Classe des Sciences Physiques et Mathématiques. Académie des Sciences de l'Ukraine. Kieff. [N.]
- Bull. Dept. Biol. Sun Yatsen Univ. Canton*.—Bulletin of the Department of Biology. College of Science, Sun Yatsen University. Canton. [N.]
- Bull. Ist. zool. Univ. Palermo*.—Bullettino dell'Istituto zoologico della R. Università di Palermo. [3330 Nz.]
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